

Curriculum Vitae

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Ottawa | CANADA

INTERDISCIPLINARY SCIENTIST

(Physics, biogeochemistry, measurement science, statistical analysis, health and medicine, epidemiology, environmental science, social theory, pedagogy)

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CREDENTIALS AND EXPERIENCE

EDUCATION

1985-1986 **PDF Physics** (NSERC of Canada post-doctoral scholar)
Leiden University, The Netherlands

1984-1985 **PDF Chemistry** (NSERC of Canada post-doctoral scholar)
Centre de recherche Paul Pascal, Talence, France

1981-1984 **PhD Physics**
University of Toronto

1980-1981 **MSc Physics**
University of Toronto

1976-1980 **BSc Physics (*magna cum laude*)**
University of Ottawa (to 1979)

RESEARCH AND TEACHING EXPERIENCE

1986-1987 **PDF and Teacher**
Physics, University of Ottawa

1987-1992 **Assistant Professor and national NSERC University Research Fellow**
Physics, University of Ottawa

1992-1997 **Associate Professor**
Physics, and Earth Sciences, University of Ottawa

1997-2009 **Full Professor**
Physics, and Earth Sciences, University of Ottawa

2009- **Freelance interdisciplinary researcher, invited lecturer**

2014- **Researcher (volunteer position)**
Ontario Civil Liberties Association (Corp., Ontario)

2022- **Chair-Director, Researcher (volunteer position)**
Correlation Research in the Public Interest (Non-profit Corp., Ontario)

HONOURS and AWARDS

1987-1992 National (Canada) NSERC (Natural Sciences and Engineering Research Council) University Research Fellow (held at the University of Ottawa)

1984-1986 NSERC of Canada Post-Doctoral Scholar (international tenure)

1980-1984 NSERC Graduate Scholarship

ACADEMIC SUPERVISION OF RESEARCHERS AND RESEARCH STUDENTS

(Numbers of individuals supervised, 1987-2009)

| | |
|----------------------------------------------|----------------------------|
| Sabbatical/research-leave researchers hosted | 8 |
| Visiting Scholars hosted | 2 |
| PDF (Post-Doctoral Fellows) supervised | 14 |
| PhD (candidates) supervised | 13 (incl. 5 co-supervised) |
| MSc (candidates) supervised | 14 (incl. 1 co-supervised) |
| BSc-research students supervised | > 30 |

(I taught to more than 2000 undergraduate students in regular courses, 1987-2009.)
(Several of my former graduate students became professors and professional scientists.)

COMPETITIVE RESEARCH-FUNDING AWARDS

1987-2009

- Successful in thirty seven (37) funding and contract competitions, as principle investigator and group leader, including uninterrupted NSERC Discovery Grant funding
- Obtained the largest NSERC Strategic Project Grant that had ever been granted in the Faculty of Science, University of Ottawa. The project was for environmental science (experimental and theoretical biogeochemistry of boreal forest lake sediments in 100 lakes).

AREAS OF RESEARCH

- Health science and public health policy
- Epidemiology (chronic diseases, emerging diseases, transmissible diseases)
- Environmental science and biogeochemistry, including soil science
- Climate science and planetary radiation-balance physics
- Measurement theory (diffraction, spectroscopy, magnetometry, microscopy)
- Condensed matter physics (theory and experiment)
- Pedagogy (general) and Physics/Science Education

- Social and political theory, including institutional analysis

AREAS OF UNIVERSITY TEACHING

- Introductory University Physics (all topics, all streams)
- Advanced Undergraduate Physics (condensed matter, statistical physics, measurement, environmental physics, climate physics)
- Graduate Physics Courses (measurement theory, condensed matter physics)
- Graduate Science Course (measurement theory and practice, all scientific and engineering disciplines)
- Undergraduate and Graduate Environmental Science and Policy
- Undergraduate and Graduate Social Science (theory of social change, institutional studies, health studies, public policy, legal system studies, science and technology)

MAIN SCIENTIFIC DISCOVERIES/ACCOMPLISHMENTS

- Age-dependent immune response and toxicity of injections, from temporal adverse-effect data, and from epidemiological data
- Epidemiology from temporal all-cause mortality (by jurisdiction, age, sex, place of death, vaccination status), in relation to socio-economic, regulatory, and underlying health factors
- Relation between individual health and societal dominance hierarchy (stress-immune-suppression stabilization of social dominance hierarchy)
- Theory of neoplastic cancer (genesis, growth, treatment)
- Theoretical epidemiology of frailty-based social segregation during epidemics
- Theoretical epidemiology of vaccination-status-based social segregation during epidemics
- Fe-cycle bio-physico-chemistry in soils and aquatic sediments, and synthetic analogues
- Advances in Invar physics (materials science, metallurgy)
- Advances in crystal chemistry (Fe-oxyhydroxides, layer silicates)
- Co-discovery of the meteoritic mineral “antitaenite”
- Co-discovery of the nano-magnetic phenomenon “superferromagnetism”
- Crystal-chemistry, genesis, occurrence and reactivity of environmental nanoparticles (nanogoethite, ferrihydrite, oxyhydroxides, phosphates, micro-magnetite...)
- Advances in the theory and methodology of Mössbauer spectroscopy (hyperfine nuclear spectroscopy)
- Advances in the theory of quantitative X-ray diffraction for nano-phases and nanoparticles
- Advances in the theory of quantitative materials magnetometry
- Radiation-balance physics of planetary surface temperature and climate science
- Geopolitics of economic globalization and state ideologies

- Bi-modal bio-psychological state model of individuals in a social dominance hierarchy (essays)

SCIENTIFIC PUBLICATIONS

- More than 100 peer-reviewed scientific articles and book-chapters
- Scientific articles cited >6600 times
- h -index = 41 (h_{10} -index = 91) (<https://en.wikipedia.org/wiki/H-index>)
- Google Scholar profile: <http://scholar.google.ca/citations?user=1ChsRsQAAAAJ>

KEYNOTE/INVITED AND PLENARY-INVITED SPEAKER AT CONFERENCES

- >40 invited talks at international scientific conferences
- many invited talks at non-scientific conferences and meetings organized by civil society and political representatives

MEDIA INTERVIEWS

- Frequent media commentator. Medical, political and social theory articles and interviews are published in many venues.
- Recent video interviews and reporting videos about the science of the COVID-19 epidemic and the science of face masks for preventing viral respiratory diseases were viewed more than 2 million times, in both French and English, up to 2022. (<https://denisrancourt.ca/page.php?id=12&name=videos>)
- Many media articles and reports about our work and research findings, >100 reports and mentions, including in national newspapers

NON-SCIENCE-JOURNAL PUBLICATIONS

- Many social commentary essays and media interviews
- Contributor at *Dissident Voice*: <https://dissidentvoice.org/author/denisrancourt/>
- Hosted and produced a weekly campus radio show for eight years 2005-2013
- *Hierarchy and free expression in the fight against racism*, book, Stairway Press, 2013 (ISBN 978-0-9859942-8-0)

ADMINISTRATIVE EXPERIENCE

- Significant academic committees, large research group lead-scientist and supervisor, steering committee of international conference, 1987-2009

- Chair-Director, Correlation Research in the Public Interest (Non-profit Corp., Ontario), 2022-

LITIGATION EXPERIENCE AS SELF-REPRESENTED CLAIMANT OR AS EXPERT WITNESS

- Several (5) applications: Ontario Labour Relations Board.
- Several (>20) appeal and judicial review applications of access-to-information decisions, Ontario.
- Several (3) reviews and appeals of bylaw decisions (one won on appeal).
- Won a major disciplinary law decision (medical ethics), Quebec [2022 QCCDMD 3 (CanLII); 2022 QCCDMD 20 (CanLII)]. Two appeals of this decision are on-going (awaiting judgements).
- A three-member health regulatory tribunal unanimously ruled me to be a qualified expert witness in the areas of “epidemiology” and “vaccine toxicity”, 2024, Quebec.
- Epidemiology expertise never denied in a court or tribunal.

AWARDED SCIENTIFIC RESEARCH FUNDING, SCHOLARLY PROFESSIONAL ACTIVITIES, SIGNIFICANT ACADEMIC COMMITTEES (WHILE AT THE UNIVERSITY OF OTTAWA, 1987-2009):

- SEE APPENDIX 1: TO THIS CV

PART I: HEALTH, MEDICINE, EPIDEMIOLOGY, COVID-19

CORRELATION Research in the Public Interest reports and articles are listed here:
<https://correlation-canada.org/research/> (SEE APPENDIX 2 TO THIS CV)

OCLA's reports and articles related to COVID-19 are listed here:
<https://ocla.ca/covid/> (SEE APPENDIX 3 TO THIS CV)

Relevant items for PART-I include the following.
(Numbering of items is the same as that used in PART-II.)

Research Reports

(Several of these articles have been translated and re-published in other languages.)

84. Rancourt DG. "**Cancer arises from stress-induced breakdown of tissue homeostasis**". *archive.org*, 30 November 2015 (25 pages), <https://archive.org/details/DGRArticleOnNewCancerModel2/mode/1up> | Also published at: *Dissident Voice* (in 4 parts), and *archive.today*.]
88. Rancourt DG. "**Masks Don't Work - A review of science relevant to COVID-19 social policy**". *ResearchGate*, 11 April 2020 (13 pages), DOI: 10.13140/RG.2.2.14320.40967/1. (Read >400K times on RG) | Archived here: <https://archive.ph/RuA5z> | Republished by CORRELATION: <https://correlation-canada.org/masks-don-t-work-2020/> | Also published at: viXra.org, River Cities' Reader. | Article debated at Digi-Debates "The Face Mask Debate", <https://www.bitchute.com/video/6YNCrmPKM16e/> (First published on YouTube). | This article has been cited in: Blaylock RL. "COVID UPDATE: What is the truth?". *Surgical Neurology International* 22-Apr-2022;13:167. https://doi.org/10.25259%2FSNI_150_2022
89. Rancourt DG. "**Criticism of Government Response to COVID-19 in Canada**". Ontario Civil Liberties Association, 18 April 2020 (13 pages), OCLA Report 2020-1 | April 2020, <https://ocla.ca/wp-content/uploads/2014/01/OCLA-Report-2020-1-Criticism-of-Government-Response-to-COVID19.pdf>
90. Rancourt DG. "**All-cause mortality during COVID-19 — No plague and a likely signature of mass homicide by government response**". *ResearchGate*, 2 June 2020 (26 pages), <http://dx.doi.org/10.13140/RG.2.2.24350.77125> (Read >200K times on RG) | Archived:

[https://web.archive.org/web/20201114012609/https://www.researchgate.net/publication/341832637 All-cause mortality during COVID-19 No plague and a likely signature of mass homicide by government response](https://web.archive.org/web/20201114012609/https://www.researchgate.net/publication/341832637>All-cause_mortality_during_COVID-19_No_plague_and_a_likely_signature_of_mass_homicide_by_government_response) | Republished by CORRELATION: <https://correlation-canada.org/no-plague-mass-homicide-2020/> | Article featured at doctors4covidethics.org.

91. Rancourt DG. "Face masks, lies, damn lies, and public health officials: 'A growing body of evidence'". *ResearchGate*, 3 August 2020 (36 pages), <http://dx.doi.org/10.13140/RG.2.2.25042.58569> | Archived: <https://web.archive.org/web/20201204024255/https://www.researchgate.net/publication/343399832> Face masks lies damn lies and public health officials A growing body of evidence
92. Rancourt DG, Baudin M, Mercier J. "Evaluation of the virulence of SARS-CoV-2 in France, from all-cause mortality 1946-2020". *ResearchGate*, 20 August 2020 (38 pages), <http://dx.doi.org/10.13140/RG.2.2.16836.65920/1> | Archived: <https://web.archive.org/web/20201204024158/https://www.researchgate.net/publication/343775235> Evaluation of the virulence of SARS-CoV-2 in France from all-cause mortality 1946-2020
93. Rancourt DG. "Measures do not prevent deaths, transmission is not by contact, masks provide no benefit, vaccines are inherently dangerous: Review update of recent science relevant to COVID-19 policy". *ResearchGate*, 28 December 2020 (26 pages), DOI: 10.13140/RG.2.2.21706.18885 | Archived here: <https://archive.ph/F5xqy> | Republished by PANDA: <https://web.archive.org/web/20240423010701/https://pandata.org/review-update-of-recent-science-relevant-to-covid-19-policy/>
94. Rancourt DG. "Analysis of the scientific basis for Ontario, Canada's mandatory face masking and physical distancing law, 2020". Ontario Civil Liberties Association, 6 February 2021 (24 pages), OCLA Report 2021-1 | February 2021, <https://ocla.ca/ocla-report-2021-1-ontarios-mandatory-face-masking-and-physical-distancing-law-reg-36420/> | Archived: https://web.archive.org/web/20240327050112/https://denisrancourt.ca/entries.php?id=14&name=2021_02_06_report_analysis_of_the_scientific_basis_for_ontario_canadas_quos_mandatory_face_masking_and_physical_distancing_law_2020
95. Rancourt DG. "Review of scientific reports of harms caused by face masks, up to February 2021". *ResearchGate*, 22 February 2021 (25 pages), DOI: 10.13140/RG.2.2.14294.37448 | Archived here: <https://archive.ph/0L5ji> | Wayback Machine: <https://web.archive.org/web/20210224001118/https://www.researchgate.net/publication/349518677> Review of scientific reports of harms caused by face masks up to February 2021 | Also published at sherbourneosite.org

96. Rancourt DG. "Glyphosate should be banned, not increased [Response to HC-PMRA invitation to submit written comments: Proposed Maximum Residue Limit - PMRL2021-10 - Glyphosate - 6 May 2021]". Ontario Civil Liberties Association, 16 July 2021 (23 pages), <https://ocla.ca/letter-to-health-canada-calling-for-ban-on-glyphosate/> | <https://ocla.ca/wp-content/uploads/2021/07/2021-07-DGR-comments-to-Health-Canada-re-Glyphosate-4.pdf> | Archived: <https://archive.org/details/2021-07-dgr-comments-to-health-canada-re-glyphosate-4/mode/1up>

97. Rancourt DG, Baudin M, Mercier J. "Analysis of all-cause mortality by week in Canada 2010-2021, by province, age and sex: There was no COVID-19 pandemic, and there is strong evidence of response-caused deaths in the most elderly and in young males". *ResearchGate*, 6 August 2021 (63 pages), <http://dx.doi.org/10.13140/RG.2.2.14929.45921> | Wayback Machine: https://web.archive.org/web/20210808231234/https://denisrancourt.ca/entries.php?id=104&name=2021_08_06_analysis_of_all_cause_mortality_by_week_in_canada_2010_2021_by_province_age_and_sex_there_was_no_covid_19_pandemic_and_there_is_strong_evidence_of_response_caused_deaths_in_the_most_elderly_and_in_young_males

98. Rancourt DG. "Do Face Masks Reduce COVID-19 Spread in Bangladesh? Are the Abaluck et al. Results Reliable?" *Global Research*, 20 September 2021 (23 pages), <https://www.globalresearch.ca/do-face-masks-reduce-covid-19-spread-bangladesh-abaluck-et-al-results-reliable/5756323?pdf=5756323> | Article featured at doctors4covidethics.org | Wayback Machine: https://web.archive.org/web/20240127070746/https://denisrancourt.ca/entries.php?id=106&name=2021_09_20_do_face_masks_reduce_covid_19_spread_in_bangladesh_are_the_abaluck_et_al_results_reliable

99. Rancourt DG, Baudin M, Mercier J. "Nature of the COVID-era public health disaster in the USA, from all-cause mortality and socio-geo-economic and climatic data". *ResearchGate*, 25 October 2021 (171 pages), <http://dx.doi.org/10.13140/RG.2.2.11570.32962> | Republished by *Global Research* | Wayback Machine: <https://web.archive.org/web/20240618042641/https://www.globalresearch.ca/nature-covid-era-public-health-disaster-usa-all-cause-mortality-socio-geo-economic-climatic-data/5759567> | Wayback Machine: https://web.archive.org/web/20240806071421/https://denisrancourt.ca/uploads_entries/1635189453861_USA%20ACM%20into%202021%20-%20article---12d.pdf

100. Hickey J, Rancourt DG. **“Nature of the toxicity of the COVID 19 vaccines in the USA”**. Ontario Civil Liberties Association, 9 February 2022 (14 pages), OCLA Report 2022-1 (ver. 1) | 9 February 2022, <https://ocla.ca/ocla-report-nature-of-toxicity-of-covid-19-vaccines-in-usa-version-1/> | <https://ocla.ca/wp-content/uploads/2022/02/OCLA-Report-2022-1-v1.pdf> | <https://web.archive.org/web/20240516140844/https://ocla.ca/wp-content/uploads/2022/02/OCLA-Report-2022-1-v1.pdf> | At Research Gate: <http://dx.doi.org/10.13140/RG.2.2.14217.93289>

101. Rancourt DG, Hickey J. **“OCLA Statement on CMAJ Fisman et al. Article Claiming Disproportionate Infection Risk from Unvaccinated Population, and on Negligent Media Reporting”**. Ontario Civil Liberties Association, 27 April 2022 (3 pages), <https://ocla.ca/ocla-statement-on-cmaj-fisman-et-al/> | <https://web.archive.org/web/20240117071217/https://ocla.ca/ocla-statement-on-cmaj-fisman-et-al/> ||| **“Fisman et al.'s main conclusion does not follow from their model”**. Response to “CMAJ April 25, 2022 194 (16) E573-E580; DOI: <https://doi.org/10.1503/cmaj.212105>”. Canadian Medical Association Journal (29 April 2022): <https://www.cmaj.ca/content/194/16/E573/tab-e-letters#fisman-et-als-main-conclusion-does-not-follow-from-their-model> | <https://web.archive.org/web/20240220061756/https://www.cmaj.ca/content/194/16/E573/tab-e-letters#fisman-et-als-main-conclusion-does-not-follow-from-their-model>

102. Johnson JA, Rancourt DG. **“Evaluating the Effect of Lockdowns On All-Cause Mortality During the COVID Era: Lockdowns Did Not Save Lives”**. *ResearchGate*, 9 July 2022 (16 pages), <http://dx.doi.org/10.13140/RG.2.2.34191.46242>. Preprint. | And published by Brownstone Institute (6 September 2022): <https://brownstone.org/articles/lockdowns-did-not-save-lives/> | Wayback Machine: https://web.archive.org/web/20240206121500/https://denisrancourt.ca/uploads_entries/1657410826554_2022-07-09---Lockdowns%20Did%20Not%20Save%20Lives.pdf

103. Rancourt DG, Baudin M, Mercier J. **“COVID-Period Mass Vaccination Campaign and Public Health Disaster in the USA: From age/state-resolved all-cause mortality by time, age-resolved vaccine delivery by time, and socio-geo-economic data”**. *ResearchGate*, 2 August 2022 (167 pages), <http://dx.doi.org/10.13140/RG.2.2.12688.28164> (Preprint; read >50K times on RG) | Alternative URL: <https://correlation-canada.org/covid-period-mass-vaccination-campaign-and-public-health-disaster-in-the-usa/> | Wayback Machine: <https://web.archive.org/web/20240705043702/https://correlation-canada.org/wp-content/uploads/2022/12/2022-08-02-COVID-period-mass-vaccination-campaign-public-health-disaster-USA.pdf>

104. Hickey J, Rancourt DG. **“Compartmental mixing models for vaccination-status-based segregation regarding viral respiratory diseases”**. *medRxiv*, 21 August 2022 (27 pages), <https://doi.org/10.1101/2022.08.21.22279035> |||

Hickey J, Rancourt DG (December 14, 2023) "Viral Respiratory Epidemic Modeling of Societal Segregation Based on Vaccination Status". *Cureus* 15(12): e50520. doi:10.7759/cureus.50520 - <https://pubmed.ncbi.nlm.nih.gov/38098739/>

106. Rancourt DG, Baudin M, Mercier J. "Proof that Canada's COVID-19 mortality statistics are incorrect". Correlation Research in the Public Interest, Correlation Brief Report, 5 October 2022 (19 pages), <https://correlation-canada.org/report-proof-that-canadas-covid-19-mortality-statistics-are-incorrect/> | <https://web.archive.org/web/20240120044912/https://correlation-canada.org/wp-content/uploads/2022/10/2022-10-05-Correlation-Proof-that-Canadas-COVID-19-mortality-statistics-are-incorrect.pdf>
108. Rancourt DG. "Probable causal association between India's extraordinary April-July 2021 excess-mortality event and the vaccine rollout". Correlation Research in the Public Interest, *Correlation Brief Report*, 6 December 2022 (18 pages), <https://correlation-canada.org/report-probable-causal-association-between-indias-extraordinary-april-july-2021-excess-mortality-event-and-the-vaccine-rollout/> | <https://web.archive.org/web/20240328211923/https://correlation-canada.org/wp-content/uploads/2022/12/2022-12-06-Correlation-India-excess-mortality-vaccine-rollout.pdf>
109. Rancourt DG, Baudin M, Mercier J. "Probable causal association between Australia's new regime of high all-cause mortality and its COVID-19 vaccine rollout", Correlation Research in the Public Interest, *Correlation Brief Report*, 20 December 2022 (47 pages), <https://correlation-canada.org/report-probable-causal-association-between-australias-new-regime-of-high-all-cause-mortality-and-its-covid-19-vaccine-rollout/> | <https://web.archive.org/web/20240818010700/https://correlation-canada.org/wp-content/uploads/2022/12/2022-12-20-Correlation-Australia-excess-mortality-vaccine-rollout.pdf>
110. Hickey J, Rancourt DG. "Predictions from standard epidemiological models of consequences of segregating and isolating vulnerable people into care facilities", *medRxiv*, 5 February 2023 (79 pages), <https://www.medrxiv.org/content/10.1101/2023.02.05.23285490v1> | | | Hickey J, Rancourt DG. "Predictions from standard epidemiological models of consequences of segregating and isolating vulnerable people into care facilities". *PLoS One*. 2023 Oct 30;18(10):e0293556. doi: 10.1371/journal.pone.0293556. PMID: 37903148; PMCID: PMC10615287. - <https://pubmed.ncbi.nlm.nih.gov/37903148/>
111. Rancourt DG, Baudin M, Hickey J, Mercier J. "Age-stratified COVID-19 vaccine-dose fatality rate for Israel and Australia", Correlation Research in the Public Interest, *Correlation Brief Report*, 9 February 2023 (40 pages), <https://correlation-canada.org/report-age-stratified-covid-19-vaccine-dose-fatality-rate-for-israel-and-australia/> | <https://web.archive.org/web/20240729160809/https://correlation-canada.org/report-age-stratified-covid-19-vaccine-dose-fatality-rate-for-israel-and-australia.pdf>

canada.org/wp-content/uploads/2023/02/2023-02-09-Correlation-Age-stratified-vaccine-dose-fatality-Israel-Australia.pdf

113. Rancourt DG. “**Does the analysis of Schmeling et al. suggest a batch-dependent safety signal for the BNT162b2 mRNA COVID-19 vaccine?**”, *denisrancourt.ca*, 1 July 2023 (2 pages), <https://denisrancourt.ca/entries.php?id=131> | https://web.archive.org/web/20240206121314/https://denisrancourt.ca/uploads_entries/1688184900800_2023-07-01--Rancourt---Does%20the%20analysis%20of%20Schmeling%20et%20al.pdf

114. Rancourt DG, Baudin M, Hickey J, Mercier J. “**COVID-19 vaccine-associated mortality in the Southern Hemisphere**”. CORRELATION Research in the Public Interest, Report, 17 September 2023 (180 pages). <https://correlation-canada.org/covid-19-vaccine-associated-mortality-in-the-Southern-Hemisphere/> | <https://web.archive.org/web/20240918125928/https://correlation-canada.org/wp-content/uploads/2023/09/2023-09-17-Correlation-Covid-vaccine-mortality-Southern-Hemisphere-cor.pdf> | | | Rancourt DG, Baudin M, Hickey J, Mercier J. “**COVID-19 vaccine-associated mortality in the Southern Hemisphere**”. *Journal of Research and Applied Medicine*, Vol.2 No.2 (July 2024), <https://researchandappliedmedicine.com/revistas/vol2/revista2/canada-ingles.pdf> (English)

115. Rancourt DG, Hickey J, “**Quantitative evaluation of whether the Nobel-Prize-winning COVID-19 vaccine actually saved millions of lives**”. CORRELATION Research in the Public Interest, Brief Report, 08 October 2023 (115 pages). <https://correlation-canada.org/nobel-vaccine-and-all-cause-mortality/> | <https://web.archive.org/web/20240808184504/https://correlation-canada.org/wp-content/uploads/2023/10/2023-10-08-Correlation-Whether-Nobel-vaccine-saved-millions-of-lives.pdf>

116. Hickey J, Rancourt DG. “**Fisman et al.’s Psi (Ψ) index is ill-defined and leads to absurd interpretations**”. CORRELATION Research in the Public Interest, Brief Report, 30 November 2023 (9 pages). <https://correlation-canada.org/fisman-et-al-psi-index-is-ill-defined> | <https://web.archive.org/web/20240220061757/https://correlation-canada.org/wp-content/uploads/2023/11/2023-11-30-Fisman-et-al-Psi-is-ill-defined-and-leads-to-absurd-interpretations.pdf> | Also published at PubPeer: <https://pubpeer.com/publications/3ACB55309DB4EF7D3518A4A5B2B65E#2>

117. Hickey J, Rancourt DG. “**Comment on ‘Impact of immune evasion, waning and boosting on dynamics of population mixing between a vaccinated majority and unvaccinated minority’ by Fisman et al. (2024): Incorrect definition and application of a parameter Ψ** ”. CORRELATION Research in the Public Interest, Brief Report, 25 April 2024 (21 pages). <https://correlation-canada.org/comment-on-fisman-et-al-2024/> |

<https://web.archive.org/web/20240503221902/https://correlation-canada.org/wp-content/uploads/2024/04/2024-04-25-Comment-on-Fisman-et-al-2024.pdf>
||| Hickey J, Rancourt DG. “**Comment on ‘Impact of immune evasion, waning and boosting on dynamics of population mixing between a vaccinated majority and unvaccinated minority’ by Fisman et al. (2024): Incorrect definition and application of a parameter Ψ** ”. *PLOS ONE*, comment?id=10.1371/annotation/5fd78aec-baf4-4af0-8b8e-8617df7db268 (Posted by ejokinen on 05 Jun 2024 at 14:45 GMT), <https://web.archive.org/web/20240605215439/https://journals.plos.org/plosone/article/comment?id=10.1371/annotation/5fd78aec-baf4-4af0-8b8e-8617df7db268> | archive.today: <https://archive.ph/qc4mk>

118. Rancourt DG, Hickey J, Linard C. “**Spatiotemporal variation of excess all-cause mortality in the world (125 countries) during the Covid period 2020-2023 regarding socio economic factors and public-health and medical interventions**”. CORRELATION Research in the Public Interest, Report, 19 July 2024 (521 pages). <https://correlation-canada.org/covid-excess-mortality-125-countries> | <https://web.archive.org/web/20240917114921/https://correlation-canada.org/wp-content/uploads/2024/07/2024-07-19-Correlation-ACM-World-125-countries-Rancourt-Hickey-Linard.pdf>

Selected Essays

120. Rancourt DG. “**Some Big Lies of Money, Medicine and Science**”. *NEXUS*, August-September 2010, pp. 1-5. | Archived: <https://archive.org/details/2010SomeBigLiesScienceNEXUS.Rancourt.draft2/mode/1up> | <https://nexusmagazine.com/product/some-big-lies-of-money-medicine-and-science/>

123. Rancourt DG. “**A Theory of Chronic Pain - A social and evolutionary theory of human disease and chronic pain**”. *Dissident Voice*, 26 December 2011, <https://dissidentvoice.org/2011/12/a-theory-of-chronic-pain/>

124. Rancourt DG. “**Self-Image-Incongruence Theory of Individual Health**”. *Dissident Voice*, 26 October 2014, <https://dissidentvoice.org/2014/10/self-image-incongruence-theory-of-individual-health/>

Invited plenary, keynote and special sessions talks or panels at regional, national, and international conferences (no paper)

206. Rancourt DG. **“From Masking to Mortality Rates: COVID-19 and What the Science Tells Us”**. Invited plenary speaker in the session: “Show Us the Science”, National Vaccine Information Center (NVIC)'s Fifth International Public Conference on Vaccination (3 days in October 2020), 16 October 2020 (39 minutes).
207. Rancourt DG. **“The False Pandemic”**. Invited plenary talk at: Gold Standard Covid Science in Practice: An Interdisciplinary Symposium (2 days, >20 speakers), 29 July 2021 (20 minutes), organized by Doctors for Covid Ethics, hosted by UK Column.
208. Rancourt DG. **“Realities of Health”**. Invited special session talk at: International Crisis Summit IV (ICS4) (3 days, >50 speakers), 17 November 2023 (20 minutes), Bucharest, Romania. <https://rumble.com/v3x6q0o-denis-rancourt-realities-of-health-very-interesting.html> .
209. Rancourt DG. **“All-cause mortality worldwide and Romania”**. Invited plenary talk at: International Crisis Summit IV (ICS4) (3 days, >50 speakers), 18 November 2023 (25 minutes), Parliament, Bucharest, Romania. <https://rumble.com/v3xza31-denis-rancourt-at-ics4-all-cause-mortality-worldwide-and-romania-18-nov-2023.html> .

PART II: ALL CONTRIBUTIONS / ALL AREAS OF RESEARCH

DETAILED LIST OF PUBLICATIONS (IN CHRONOLOGICAL ORDER, AND BY CATEGORY)

Full papers in refereed (peer-reviewed) journals

(Authors supervised/co-supervised by Denis Rancourt have their names underlined.)

1. **Rancourt DG** and J.M. Daniels, The Influence of Unequal Magnetization Direction Probabilities on Mössbauer Spectra of Superparamagnetic Particles, *Physical Review B* 29 (1984) 2410-2414.
2. **Rancourt DG**, S.R. Julian and J.M. Daniels, Mössbauer Characterization of Very Small Superparamagnetic Particles; Application to Intra-Zeolitic Alpha-Fe-203 Particles, *Journal of Magnetism and Magnetic Materials*, 49 (1985) 305-316.
3. J.M. Daniels, H.-Y. Lam, **Rancourt DG**, J.A. Westgate and D. York, The Discrimination of Pyroclastic Deposits on the Basis of the Mössbauer Spectra of their Magnetites, *Earth and Planetary Science Letters*, 73 (1985) 430-438.
4. **Rancourt DG**, S.R. Julian and J.M. Daniels, A New Interpretation for the Mössbauer Spectra of Invar Alloys; Anisotropic Hyperfine Field Fluctuations, *Journal of Magnetism and Magnetic Materials*, 51 (1985) 83-88.
5. **Rancourt DG**, New Theory for Magnetic Graphite Intercalation Compounds: Superferromagnetism in Two Dimensions, *Journal of Magnetism and Magnetic Materials*, 51 (1985) 133-140.
6. **Rancourt DG**, J.M. Daniels and H.Y. Lam, Iron-57 Mössbauer Study of Fe₂As; a Magnetically Induced Electric Field Gradient Asymmetry, *Canadian Journal of Physics* 63 (1985) 1540-1547.
7. **Rancourt DG**, C. Meschi and S. Flandrois, S=1/2 Antiferro-magnetic Finite Chains Effectively Isolated by Frustration: CuCl₂ Intercalated Graphite, *Physical Review B* 33 (1986) 347-355.

8. **Rancourt DG**, Low Temperature Behaviour of Ising Magnetic Chains; Decorated Solitons, Locally Enhanced Exchange and Diffusive Propagation, *Solid State Communications* 58 (1986) 433-440.
9. **Rancourt DG**, H.H.A. Smit, and R.C. Thiel, Metastable Compositionally and Magnetically Modulated State of Fe-Ni Invar and the Associated Super-Moment Dynamics from Mössbauer Spectroscopy, *Journal of Magnetism and Magnetic Materials* 66 (1987) 121-152.
10. **Rancourt DG**, B. Hun, and S. Flandrois, A New Biintercalation Compound, $\text{FeCl}_3\text{-NiCl}_2$ -graphite, Studied by Fe-57 Mössbauer Effect Spectroscopy and SQUID Magnetization Measurements: An Ideally Decoupled Bimagnetic System, *Canadian Journal of Physics* 66 (1988) 776-790. [This article won a “best paper of the year” award by the Canadian Association of Physicists, given at its annual meeting.]
11. **Rancourt DG**, Phenomenology of Domain Wall Pinning in Ferromagnets and Application to Fe-Ni Invar, *Journal of Magnetism and Magnetic Materials* 78 (1989) 153-163.
12. **Rancourt DG**, S. Chehab, and G. Lamarche, Reentrant Magnetism, Antiferromagnetism, and Domain Wall Pinning in Nominally Ferromagnetic Fe-Ni Invar, *Journal of Magnetism and Magnetic Materials* 78 (1989) 129-152.
13. **Rancourt DG**, Accurate Site Populations from Mössbauer Spectroscopy, *Nucl. Inst. Meth. Phys. Res. B (NIMB)* 44 (1989) 199-210.
14. P. Hargraves, **Rancourt DG**, and A.E. Lalonde, Single Crystal Mössbauer Study of Phlogopite Mica, *Canadian Journal of Physics* 64 (1990) 128-144.
15. **Rancourt DG**, P. Hargraves, G. Lamarche, and R.A. Dunlap, Microstructure and Low Temperature Magnetism of Fe-Ni Invar Alloys, *Journal of Magnetism and Magnetic Materials* 87 (1990) 71-82.
16. **Rancourt DG**, G. Lamarche, P. Tume, A.E. Lalonde, P. Biensan, and S. Flandrois, Dipole-Dipole Interactions as Source of Spin Glass Behaviour in Exchange-Wise Two-Dimensional Ferromagnetic-Layer Compounds. *Canadian Journal of Physics* 68 (1990) 1134-1137.
17. **Rancourt DG**, S. Flandrois, P. Biensan, and G. Lamarche, Magnetism of a Graphite Bi-Intercalation Compound with Two Types of Ferromagnetic Layers: Double Hysteretic Transition in $\text{CrCl}_3\text{-NiCl}_2$. *Canadian Journal of Physics* 68 (1990) 1435-1439.
18. **Rancourt DG**, and J.-Y. Ping, Voigt-Based Methods for Arbitrary-Shape Static Hyperfine Parameter Distributions in Mössbauer Spectroscopy. *Nucl. Instr. Meth. Phys. Res. B (NIMB)* 58 (1991) 85-97.

19. **Rancourt DG, M.-Z. Dang**, and A.E. Lalonde, Mössbauer Spectroscopy of Tetrahedral Fe^{3+} in Trioctahedral Micas. *American Mineralogist* 77 (1992) 34-43.

20. **Rancourt DG**, Mössbauer Spectroscopy of Tetrahedral Fe^{3+} in Trioctahedral Micas—Reply. *American Mineralogist* 78 (1993) 669-671.

21. **J.-Y. Ping, Rancourt DG**, and R.A. Dunlap, Physical Bases and Break Down of Hyperfine Field Distribution Analysis in FCC Fe-Ni (5-70 at %Fe). *Journal of Magnetism and Magnetic Materials* 103 (1992) 285-313.

22. **Rancourt DG, A.M. McDonald**, A.E. Lalonde, and **J.-Y. Ping**. Mössbauer Absorber Thickness for Accurate Site Populations in Iron Bearing Minerals. *American Mineralogist* 78 (1993) 1-7.

23. **Rancourt DG, J.-Y. Ping**, and **M.-Z. Dang**. Fe-57 Mössbauer Isomer shifts in Randon FCC Fe-Ni Alloys: Experiment versus Electronic Structure Calculations. *Canadian Journal of Physics* 70 (1992) 1241-1243.

24. **Rancourt DG, M. Dubé**, and **P.R.L. Heron**. General Method for Applying Mean Field Theory to Disordered Magnetic Alloys. *Journal of Magnetism and Magnetic Materials* 125 (1993) 39-48.

25. **Rancourt DG, P. Tume**, and A.E. Lalonde. Kinetics of the $(\text{Fe}^{2+} + \text{OH}^-)_{\text{mica}} = (\text{Fe}^{3+} + \text{O}^{2-})_{\text{mica}} + \text{H}$ Oxidation Reaction in Bulk Single-Crystal Biotite Studied by Mössbauer Spectroscopy. *Physics and Chemistry of Minerals* 20 (1993) 276-284.

26. T.-B. Bai, S. Guggenheim, S.-J. Wang, **Rancourt DG**, and A.F. Koster van Groos. Metastable Phase Relations in the Chlorite- H_2O System. *American Mineralogist* 78 (1993) 1208-1216.

27. **Rancourt DG, I.A.D. Christie, M. Royer**, H Kodama, J.-L. Robert, A.E. Lalonde, and E. Murad. Determination of Accurate ${}^4\text{Fe}^{3+}$, ${}^6\text{Fe}^{3+}$, and ${}^6\text{Fe}^{2+}$ Site Populations in Synthetic Annite by Mössbauer Spectroscopy. *American Mineralogist* 79 (1994) 51-63.

28. **Rancourt DG**. Mössbauer Spectroscopy of Minerals I. Inadequacy of Lorentzian-Line Doublets in Fitting Spectra Arising from Quadrupole Splitting Distributions. *Physics and Chemistry of Minerals* 21 (1994) 244-249.

29. **Rancourt DG**. Mössbauer Spectroscopy of Minerals II. Problem of Resolving *cis* and *trans* Octahedral Fe^{2+} Sites. *Physics and Chemistry of Minerals* 21 (1994) 250-257.

30. **Rancourt DG, J.-Y. Ping, and R.G. Berman.** Mössbauer Spectroscopy of Minerals III. Octahedral-Site Fe^{2+} Quadrupole Splitting Distributions in the Phlogopite-Annite Series. *Physics and Chemistry of Minerals* 21(1994) 258-267.

31. **Rancourt DG, I.A.D. Christie, G. Lamarche, I. Swainson, and S. Flandrois.** Magnetism of Synthetic and Natural Annite Mica: Ground State and Nature of Excitations in an Exchange-Wise Two Dimensional Easy-Plane Ferromagnet with Disorder. *Journal of Magnetism and Magnetic Materials* 138 (1994) 31-44.

32. **M. Dubé, P.R.L. Heron and Rancourt DG.** Local Moment Magnetism of FCC Fe-Ni Alloys I. Cluster-Method Mean Field Theory. *Journal of Magnetism and Magnetic Materials* 147 (1995) 122-132.

33. **M.-Z. Dang, M. Dubé and Rancourt DG.** Local Moment Magnetism of FCC Fe-Ni Alloys II. Ising Approximation Monte Carlo. *Journal of Magnetism and Magnetic Materials* 147 (1995) 133-140.

34. L. Raki, **Rancourt DG** and C. Detellier. Preparation, Characterization and Mössbauer Spectroscopy of Organic Anion Intercalated Pyroaurite-like Layered Double Hydroxides. *Chemistry of Materials* 7 (1995) 221-224.

35. **Rancourt DG** and R.B. Scorzelli, Low Spin γ -Fe-Ni (γ_{LS}) Proposed as a New Mineral in Fe-Ni-Bearing Meteorites: Epitaxial Intergrowth of γ_{LS} and Tetrataenite as Possible Equilibrium State at \sim 20-40 at % Ni. *Journal of Magnetism and Magnetic Materials* 150 (1995) 30-36.

36. **Rancourt DG** and R.B. Scorzelli. Low-spin γ_{LS} -Fe-Ni proposed as a new meteoritic mineral—**Reply**. *Journal of Magnetism and Magnetic Materials* 174 (1997) 324-330.

37. A.E. Lalonde, **Rancourt DG** and G.Y. Chao. Fe-Bearing Trioctahedral Micas from Mont Saint-Hilaire, Québec. *Mineralogical Magazine* 60 (1996) 447-460.

38. **L. Dou, R.J.W. Hodgson and Rancourt DG.** Bayesian Inference Theory Applied to Hyperfine Parameter Distribution Extraction in Mössbauer Spectroscopy. *Nucl. Instr. Meth. Phys. Res. B (NIMB)* 100 (1995) 511-518.

39. **Rancourt DG, J.Y. Ping, B. Boukili and J.-L. Robert.** Octahedral-site Fe^{2+} Quadrupole Splitting Distributions from Mössbauer Spectroscopy along the (OH, F)-Annite Join. *Physics and Chemistry of Minerals* 23 (1996) 63-71.

40. **M.-Z. Dang and Rancourt DG.** Simultaneous magnetic and chemical order-disorder phenomena in Fe_3Ni , FeNi and FeNi_3 . *Physical Review B* 53 (1996) 2291-2302.

41. R.G. Berman, L. Ya Aranovich and **Rancourt DG**. Phase equilibrium constraints on the stability of biotite. Part 2: Fe-Al biotite in the system K_2O - FeO - Al_2O_3 - SiO_2 - H_2O . Current Research 1995-E; Geological Survey of Canada, 263-270.

42. **Rancourt DG** and M.-Z. Dang. Relation between anomalous magneto-volume behaviour and magnetic frustration in Invar alloys. Physical Review B 54 (1996) 12225-12231.

43. B. Grossmann and **Rancourt DG**. Simulation of magneto-volume effects in ferromagnets by a combined molecular dynamics and Monte Carlo approach. Physical Review B 54 (1996) 12294-12301.

44. K. Lagarec and **Rancourt DG**. Extended Voigt-Based Analytic Lineshape Method for Determining N-Dimensional Correlated Hyperfine Parameter Distributions in Mössbauer Spectroscopy. Nucl. Instr. Meth. Phys. Res. B (NIMB) 129 (1997) 266-280.

45. **Rancourt DG**, K. Lagarec, A. Densmore, R.A. Dunlap, J.I. Goldstein, R.J. Reisener, and R.B. Scorzelli. Experimental Proof of the Distinct Electronic Structure of a New Meteoritic Fe-Ni Alloy Phase. Journal of Magnetism and Magnetic Materials 191 (1999) L255-L260.

46. A.E. Lalonde, **Rancourt DG**, and J.Y. Ping. Accuracy of Ferric/Ferrous Determinations in Micas: A comparison of Mössbauer spectroscopy and the Pratt and Wilson Wet-Chemical Methods. Hyperfine Interactions 117 (1998) 175-204.

47. M.-Z. Dang, **Rancourt DG**, J.E. Dutrizac, G. Lamarche, and R. Provencher. Interplay of Surface Conditions, Particle Size, Stoichiometry, Cell Parameters, and Magnetism in Synthetic Hematite-like Materials. Hyperfine Interactions 117 (1998) 271-319.

48. A.A.T. Shabani, **Rancourt DG**, and A.E. Lalonde. Determination of cis and trans Fe^{2+} Populations in $2M_1$ Muscovite by Mössbauer Spectroscopy. Hyperfine Interactions 117 (1998) 117-129.

49. K. Lagarec and **Rancourt DG**. Fe_3Ni -type chemical order in $Fe_{65}Ni_{35}$ films grown by evaporation: Implications regarding the Invar Problem. Physical Review B 62 (2000) 978-985.

50. **Rancourt DG**, D. Fortin, T. Pichler, P.-J. Thibault, G. Lamarche, R.V. Morris, and P.H.Mercier J. Mineralogy of a natural As-rich hydrous ferric oxide coprecipitate formed by mixing of hydrothermal fluid and seawater: Implications regarding surface complexation and color banding in ferrihydrite deposits. American Mineralogist 86 (2001) 834-851. (6 tables, 8 figures, > 100 references)

51. **Rancourt DG**, P.H.Mercier J., D. Cherniak, S. Desgreniers, H. Kodama, J.-L. Robert, and E. Murad. Mechanisms and crystal chemistry of oxidation in annite: Resolving the

hydrogen-loss and vacancy reactions. *Clays and Clay Minerals* 49 (2001) 455-491. (6 tables, 21 figures, > 100 references)

52. K. Lagarec, Rancourt DG, S.K. Bose, B. Sanyal, and R.A. Dunlap. Observation of a composition-controlled high-moment/low-moment transition in the face centered cubic Fe-Ni system: Invar effect is an expansion, not a contraction. *Journal of Magnetism and Magnetic Materials* 236 (2001) 107-130. (10 figures, 103 references)
53. C. van der Zee, D. Roberts, Rancourt DG, C.P. Slomp. Nanogoethite is the dominant reactive oxyhydroxide phase in lake and marine sediments. *Geology* 31 (2003) 993-996.
54. J. Scott, S. Gambarotta, G. Yap, **Rancourt DG**. Labile tetrานuclear Fe(II) and Co(II) clusters of a dipyrrolide dianion with two diamagnetic ferrous nodes. *Organometallics* 22 (2003) 2325-2330.
55. **Rancourt DG**, F. González-Lucena, P.-J. Thibault. Magnetic granulometry from equilibrium magnetization measurements: Mineral magnetometry of superparamagnetic particles and application to synthetic ferrihydrites. *American Mineralogist* 89 (2004) 987-997.
56. R. James Evans, Rancourt DG, M. Grodzicki. Hyperfine electric field gradients and local distortion environments of octahedrally co-ordinated Fe^{2+} . *American Mineralogist* 90 (2005) 187-198.
57. C. van der Zee, C.P. Slomp, **Rancourt DG**, G.J. de Lange, and W. van Raaphorst. A Mössbauer spectroscopic study of the iron redox transition in eastern Mediterranean sediments. *Geochimica et Cosmochimica Acta* 69 (2005) 441-453.
58. S. Katsev, Rancourt DG, I. L'Heureux. dSED: A database tool for modelling sediment early diagenesis. *Computers & Geosciences* 30 (2004) 959-967. Database and manual available at www.science.uottawa.ca/LSSE
59. P.H. Mercier J, R.J. Evans, Rancourt DG. Geometric crystal chemical models for structural analysis of micas and their polytypes. *American Mineralogist* 90 (2005) 382-398.
60. P. Piilonen, Rancourt DG, R.J. Evans, A.E. Lalonde, A.M. McDonald, and A.A.T. Shabani. The relationships between crystal-chemical and hyperfine parameters: A combined Fe-57 Mössbauer spectroscopy and single-crystal X-ray diffraction study. *European Journal of Mineralogy* 16 (2004) 989-1002.
61. P.H. Mercier J, Rancourt DG, J.-L. Robert, R.G. Berman, G.J. Redhammer. Fundamental difference between synthetic powder and natural or synthetic single crystal 1M micas:

Geometric homo-octahedral versus meso-octahedral sheets. *American Mineralogist* 90 (2005) 399-410.

62. **Rancourt DG**, P.-J. Thibault, D. Mavrocordatos, G. Lamarche. Hydrous ferric oxide precipitation in the presence of nonmetabolizing bacteria: Constraints on the mechanism of a biotic effect. *Geochimica et Cosmochimica Acta* 69 (2005) 553-577.
63. R. James Evans, **Rancourt DG**, M. Grodzicki. Hyperfine electric field gradient tensors at Fe²⁺ sites in octahedral layers: Towards understanding oriented single-crystal Mössbauer spectroscopy measurements of micas. *American Mineralogist* 90 (2005) 1540-1555.
64. P.H. Mercier J, **Rancourt DG**, G.J. Redhammer, A.E. Lalonde, J.-L. Robert, R.G. Berman, H. Kodama. Upper limit of the tetrahedral rotation angle and factors affecting octahedral flattening in synthetic and natural 1M polytype C2/m space group micas. *American Mineralogist* 91 (2006) 831-849.
65. **Rancourt DG** and M.-Z. Dang. Absolute quantification by powder X-ray diffraction of complex mixtures of crystalline and amorphous phases for applications in the Earth sciences. *American Mineralogist* 90 (2005) 1571-1586.
66. A. Thompson, O.A. Chadwick, **Rancourt DG**, J. Chorover. Iron-oxide crystallinity increases during soil redox oscillations. *Geochimica et Cosmochimica Acta* 70 (2006) 1710-1727.
67. K. Telmer, B. Daneshfar, M.S. Sanborn, D. Kliza-Petelle, **Rancourt DG**. The role of smelter emissions and element remobilization in the sediment chemistry of 99 lakes around the Horne smelter, Québec. *Geochemistry: Exploration, Environment, Analysis* 6 (2006) 187-202.
68. D.J. Dunlop, Ö. Özdemir, **Rancourt DG**. Magnetism of biotite crystals. *Earth and Planetary Science Letters* 243 (2006) 805-819.
69. R.G. Berman, L.Ya. Aranovich, **Rancourt DG**, P.H. Mercier J. Reversed phase equilibrium constraints on the stability of Mg-Fe-Al biotite. *American Mineralogist* 92 (2007) 139-150.
70. S. Katsev, I. Tsandev; I. L'Heureux, **Rancourt DG**. Factors controlling long term phosphorus efflux from lake sediments: Exploratory reactive-transport modeling. *Chemical Geology* 234 (2006) 127-147.
71. A. Génin, J.-M. Grenèche, C. Tournassat, J. Brendlé, **Rancourt DG**, L. Charlet. Reversible surface-sorption-induced electron-transfer oxidation of Fe(II) at reactive sites on a synthetic clay mineral. *Geochimica et Cosmochimica Acta* 71 (2007) 863-876.

72. Fedora González-Lucena, **Denis G. Rancourt**, and Ana H. Delgado. All iron oxides and oxyhydroxides have high Néel or Curie points. Submitted (MS-EPSL-D-07-00819, Sep-2007) to *Earth and Planetary Science Letters*. Planned be re-submitted in May or June 2008 with new title: Lepidocrocite and Schwertmanite are superparamagnetic. Not re-submitted.

73. **Rancourt DG** and J.-F. Meunier. Constraints on structural models of ferrihydrite, as a nanocrystalline material. *American Mineralogist* 93 (2008), 1412-1417.

74. S.A. Kelly, **Rancourt DG**, and M.-Z. Dang. Superferromagnetism of goethite nanoparticles. Submitted (MS-BJ10884, Sep-2007) to *Physical Review B*. Planned to be re-submitted elsewhere, summer 2008. Not re-submitted.

75. Pierre-Jean Thibault, **Denis G. Rancourt**, R. James Evans, and John E. Dutrizac. Mineralogical confirmation of a P:Fe = 1:2 limiting stoichiometric ratio in colloidal P-bearing ferrihydrite-like hydrous ferric oxide. *Geochimica et Cosmochimica Acta* 73 (2009) 364-376.

76. P. Marchand and **Rancourt DG**. Nature and genesis of reactive environmental nanoparticle ferrihydrite. First submitted (MS-1151405, Oct-2007) to *Science*. General model for the aqueous precipitation of rough-surface nanocrystals and application to ferrihydrite genesis. *American Mineralogist* 94 (2009), 1428-1439.

77. M.-Z. Dang, B. George, **Rancourt DG**, K. Telmer. Quantitative solid-phase modal and geochemical analyses of contemporary boreal forest lake sediments from 99 lakes: Inferred origins, transformations, and mixing in the mineral, organic matter, and inorganic-amorphous components. Await final co-author feedback for submission to *GCA* (28 figures, 9 tables, 4 appendices), 2008. Not submitted.

78. W. Wu, A. McCollam, I. Swainson, **Rancourt DG**, S.R. Julian. A novel non-Fermi-liquid state in the iron-pnictide FeCrAs. *EPL (Europhysics Letters)* 85 (2009), 17009-17014.

79. **Rancourt DG**. Canadian Education as an Impetus towards Fascism. *Journal for Activist Science and Technology Education* 1 (2) (2009) 68-77.

80. A. Thompson, **Rancourt DG**, O.A. Chadwick, J. Chorover. Iron solid-phase differentiation along a redox gradient in basaltic soils. *Geochimica et Cosmochimica Acta* 75 (2011), 119-133.

Research Reports

(Several of these articles have been translated and re-published in other languages.)

81. **Rancourt DG.** "Global Warming: Truth or Dare?" *Activist Teacher*, 27 February 2007. [This article was read in-part before a standing committee (Environment) of the USA Senate. It was reviewed in the April 2007 issue of The Dominion magazine. Alexander Cockburn, writing in *The Nation*, called it "one of the best essays on greenhouse myth-making from a left perspective" ("Dissidents Against Dogma", *The Nation*, 25 June 2007).]
82. **Rancourt DG.** "Radiation physics constraints on global warming: CO₂ increase has little effect". *Climate Guy*, 3 June 2011 (22 pages). Also published at *Archive.org*. [This article is being used to teach planetary physics in the Astronomy Department at Harvard University, USA.]
<https://archive.org/details/RadiationPhysicsConstraintsOnGlobalWarmingCo2IncreaseHasLittleEffect/mode/1up>
83. **Rancourt DG.** "Calculated MINIMUM reparation due to slave descendants: \$1.5 million to each Black citizen of the USA". *Activist Teacher*, 18 January 2013. Also published at: *Dissident Voice, Black Agenda Report*.
84. **Rancourt DG.** "Cancer arises from stress-induced breakdown of tissue homeostasis". *archive.org*, 30 November 2015 (25 pages),
<https://archive.org/details/DGRArticleOnNewCancerModel2/mode/1up> .
[Also published at *Dissident Voice* (in 4 parts), and *archive.today*.]
85. **Rancourt DG.** "Canadian defamation law is noncompliant with international law". Ontario Civil Liberties Association, 1 February 2016 (21 pages), <https://ocla.ca/wp-content/uploads/2016/02/DGR-Canadian-Defamation-Law-Violates-ICCPR-for-posting.pdf> | Archived (Wayback Machine):
https://web.archive.org/web/20240116113155/https://denisrancourt.ca/entries.php?id=83&name=2016_02_01_report_canadian_defamation_law_is_noncompliant_with_international_law
86. **Rancourt DG.** "Anatomy of the false link between forest fires and anthropogenic CO₂". *ResearchGate*, 22 May 2016 (18 pages), <http://dx.doi.org/10.13140/RG.2.1.2059.6087> .
87. **Rancourt DG.** "Geo-Economics and Geo-Politics Drive Successive Eras of Predatory Globalization and Social Engineering — Historical emergence of climate change, gender equity, and anti-racism as State doctrines". Ontario Civil Liberties Association, 2 April 2019 (78 pages), OCLA Report 2019-1 | April 2019, https://ocla.ca/wp-content/uploads/2019/04/OCLA_Report_2019-1.pdf [Also published as an audio-book at *cdn.libryplayer.xyz*.]

88. **Rancourt DG.** "Masks Don't Work - A review of science relevant to COVID-19 social policy". *ResearchGate*, 11 April 2020 (13 pages), DOI: 10.13140/RG.2.2.14320.40967/1. (Read >400K times on RG) | Archived here: <https://archive.ph/RuA5z> . Also published at: *viXra.org*, *River Cities' Reader*. Article debated at *Digi-Debates* "The Face Mask Debate", <https://youtu.be/AQyLFdoeUNk>. **This article has been cited in:** Blaylock RL. "COVID UPDATE: What is the truth?". *Surgical Neurology International* 22-Apr-2022;13:167. https://doi.org/10.25259%2FSNI_150_2022

89. **Rancourt DG.** "Criticism of Government Response to COVID-19 in Canada". Ontario Civil Liberties Association, 18 April 2020 (13 pages), OCLA Report 2020-1 | April 2020, <https://ocla.ca/wp-content/uploads/2014/01/OCLA-Report-2020-1-Criticism-of-Government-Response-to-COVID19.pdf>

90. **Rancourt DG.** "All-cause mortality during COVID-19 — No plague and a likely signature of mass homicide by government response". *ResearchGate*, 2 June 2020 (26 pages), <http://dx.doi.org/10.13140/RG.2.2.24350.77125> (Read >200 times on RG). [Article featured at *doctors4covidethics.org*.]

91. **Rancourt DG.** "Face masks, lies, damn lies, and public health officials: 'A growing body of evidence'". *ResearchGate*, 3 August 2020 (36 pages), <http://dx.doi.org/10.13140/RG.2.2.25042.58569> .

92. **Rancourt DG**, Baudin M, Mercier J. "Evaluation of the virulence of SARS-CoV-2 in France, from all-cause mortality 1946-2020". *ResearchGate*, 20 August 2020 (38 pages), <http://dx.doi.org/10.13140/RG.2.2.16836.65920/1> .

93. **Rancourt DG.** "Measures do not prevent deaths, transmission is not by contact, masks provide no benefit, vaccines are inherently dangerous: Review update of recent science relevant to COVID-19 policy". *ResearchGate*, 28 December 2020 (26 pages), DOI: 10.13140/RG.2.2.21706.18885. Archived here: <https://archive.ph/F5xqy> .

94. **Rancourt DG.** "Analysis of the scientific basis for Ontario, Canada's mandatory face masking and physical distancing law, 2020". Ontario Civil Liberties Association, 6 February 2021 (24 pages), OCLA Report 2021-1 | February 2021, <https://ocla.ca/wp-content/uploads/2021/02/OCLA-Report-2021-1-4th-science-review-for-covid-policy-Reg-364-20-7f.pdf>

95. **Rancourt DG.** "Review of scientific reports of harms caused by face masks, up to February 2021". *ResearchGate*, 22 February 2021 (25 pages), DOI: 10.13140/RG.2.2.14294.37448. Archived here: <https://archive.ph/0L5ji> . Also published at *sherbournesite.org*.

96. **Rancourt DG**. "Glyphosate should be banned, not increased [Response to HC-PMRA invitation to submit written comments: Proposed Maximum Residue Limit - PMRL2021-10 - Glyphosate - 6 May 2021]". Ontario Civil Liberties Association, 16 July 2021 (23 pages), <https://ocla.ca/wp-content/uploads/2021/07/2021-07-DGR-comments-to-Health-Canada-re-Glyphosate-4.pdf>

97. **Rancourt DG**, Baudin M, Mercier J. "Analysis of all-cause mortality by week in Canada 2010-2021, by province, age and sex: There was no COVID-19 pandemic, and there is strong evidence of response-caused deaths in the most elderly and in young males". *ResearchGate*, 6 August 2021 (63 pages), <http://dx.doi.org/10.13140/RG.2.2.14929.45921>.

98. **Rancourt DG**. "Do Face Masks Reduce COVID-19 Spread in Bangladesh? Are the Abaluck et al. Results Reliable?" *Global Research*, 20 September 2021 (23 pages), <https://www.globalresearch.ca/do-face-masks-reduce-covid-19-spread-bangladesh-abaluck-et-al-results-reliable/5756323?pdf=5756323> [Article featured at [doctors4covidethics.org.](http://doctors4covidethics.org/)]

99. **Rancourt DG**, Baudin M, Mercier J. "Nature of the COVID-era public health disaster in the USA, from all-cause mortality and socio-geo-economic and climatic data". *ResearchGate*, 25 October 2021 (171 pages), <http://dx.doi.org/10.13140/RG.2.2.11570.32962>.

100. Hickey J, **Rancourt DG**. "Nature of the toxicity of the COVID 19 vaccines in the USA". Ontario Civil Liberties Association, 9 February 2022 (14 pages), OCLA Report 2022-1 (ver. 1) | 9 February 2022, <https://ocla.ca/wp-content/uploads/2022/02/OCLA-Report-2022-1-v1.pdf>

101. **Rancourt DG**, Hickey J. "OCLA Statement on CMAJ Fisman et al. Article Claiming Disproportionate Infection Risk from Unvaccinated Population, and on Negligent Media Reporting". Ontario Civil Liberties Association, 27 April 2022 (3 pages), <https://ocla.ca/ocla-statement-on-cmaj-fisman-et-al/> . /// "Fisman et al.'s main conclusion does not follow from their model". Response to "CMAJ April 25, 2022 194 (16) E573-E580; DOI: <https://doi.org/10.1503/cmaj.212105>". *Canadian Medical Association Journal* (29 April 2022): <https://www.cmaj.ca/content/194/16/E573/tab-e-letters#fisman-et-als-main-conclusion-does-not-follow-from-their-model> .

102. Johnson JA, **Rancourt DG**. "Evaluating the Effect of Lockdowns On All-Cause Mortality During the COVID Era: Lockdowns Did Not Save Lives". *ResearchGate*, 9 July 2022 (16 pages), <http://dx.doi.org/10.13140/RG.2.2.34191.46242> . Preprint. | And published by Brownstone Institute (6 September 2022): <https://brownstone.org/articles/lockdowns-did-not-save-lives/>

103. **Rancourt DG**, Baudin M, Mercier J. "COVID-Period Mass Vaccination Campaign and Public Health Disaster in the USA: From age/state-resolved all-cause mortality by time, age-resolved vaccine delivery by time, and socio-geo-economic data". *ResearchGate*, 2 August 2022 (167 pages), <http://dx.doi.org/10.13140/RG.2.2.12688.28164> . Preprint. (Read >50K times on RG)

104. Hickey J, **Rancourt DG**. "Compartmental mixing models for vaccination-status-based segregation regarding viral respiratory diseases". *medRxiv*, 21 August 2022 (27 pages), <https://doi.org/10.1101/2022.08.21.22279035> / Now published as: Hickey J, **Rancourt DG** (December 14, 2023) "Viral Respiratory Epidemic Modeling of Societal Segregation Based on Vaccination Status". *Cureus* 15(12): e50520. doi:10.7759/cureus.50520 - <https://pubmed.ncbi.nlm.nih.gov/38098739/>

105. **Rancourt DG**. "Canadian court decisions on the constitutionality of Covid measures are invalid due to jurisdictional errors of law". Ontario Civil Liberties Association, OCLA Report 2022-2, 23 September 2022 (31 pages), <https://ocla.ca/ocla-report-canadian-court-decisions-on-the-constitutionality-of-covid-measures-are-invalid-due-to-jurisdictional-errors-of-law/> .

106. **Rancourt DG**, Baudin M, Mercier J. "Proof that Canada's COVID-19 mortality statistics are incorrect". Correlation Research in the Public Interest, *Correlation Brief Report*, 5 October 2022 (19 pages), <https://correlation-canada.org/report-proof-that-canadas-covid-19-mortality-statistics-are-incorrect/> .

107. Hickey J, **Rancourt DG**. "State coercion to receive medical injections confirms conflicting interpretations of the right to life, liberty and security of the person (Section 7 of the *Canadian Charter of Rights and Freedoms*)". Ontario Civil Liberties Association, OCLA Report 2022-3, 14 October 2022 (13 pages), <https://ocla.ca/state-coercion-to-receive-medical-injections-section-7/> .

108. **Rancourt DG**. "Probable causal association between India's extraordinary April-July 2021 excess-mortality event and the vaccine rollout". Correlation Research in the Public Interest, *Correlation Brief Report*, 6 December 2022 (18 pages), <https://correlation-canada.org/report-probable-causal-association-between-indias-extraordinary-april-july-2021-excess-mortality-event-and-the-vaccine-rollout/> .

109. **Rancourt DG**, Baudin M & Mercier J. "Probable causal association between Australia's new regime of high all-cause mortality and its COVID-19 vaccine rollout", Correlation Research in the Public Interest, *Correlation Brief Report*, 20 December 2022 (47 pages), <https://correlation-canada.org/report-probable-causal-association-between-australias-new-regime-of-high-all-cause-mortality-and-its-covid-19-vaccine-rollout/> .

110. Hickey J, **Rancourt DG**. "Predictions from standard epidemiological models of consequences of segregating and isolating vulnerable people into care facilities",

medRxiv, 5 February 2023 (79 pages),
<https://www.medrxiv.org/content/10.1101/2023.02.05.23285490v1> / Now published
as: Hickey J, **Rancourt DG**. "Predictions from standard epidemiological models of consequences of segregating and isolating vulnerable people into care facilities". *PLoS One*. 2023 Oct 30;18(10):e0293556. doi: 10.1371/journal.pone.0293556. PMID: 37903148; PMCID: PMC10615287. - <https://pubmed.ncbi.nlm.nih.gov/37903148/>

111. **Rancourt DG**, Baudin M, Hickey J & Mercier J. "Age-stratified COVID-19 vaccine-dose fatality rate for Israel and Australia", Correlation Research in the Public Interest, *Correlation Brief Report*, 9 February 2023 (40 pages), <https://correlation-canada.org/report-age-stratified-covid-19-vaccine-dose-fatality-rate-for-israel-and-australia/> .
112. **Rancourt DG**. "The Court of Appeal for Ontario's decision in J.N. v. C.G. brings the province's appellate judiciary into disrepute", Ontario Civil Liberties Association, OCLA Report | 29 March 2023 (12 pages), <https://ocla.ca/ocla-report-onca-decision-harms-public-perception-of-judiciary/> .
113. **Rancourt DG**. "Does the analysis of Schmeling et al. suggest a batch-dependent safety signal for the BNT162b2 mRNA COVID-19 vaccine?", *denisrancourt.ca*, 1 July 2023 (2 pages), <https://denisrancourt.ca/entries.php?id=131> .
114. **Rancourt DG**, Baudin M, Hickey J, Mercier J. "COVID-19 vaccine-associated mortality in the Southern Hemisphere". CORRELATION Research in the Public Interest, Report, 17 September 2023 (180 pages). <https://correlation-canada.org/covid-19-vaccine-associated-mortality-in-the-Southern-Hemisphere/> .
115. **Rancourt DG** and Hickey J, "Quantitative evaluation of whether the Nobel-Prize-winning COVID-19 vaccine actually saved millions of lives". CORRELATION Research in the Public Interest, Brief Report, 08 October 2023 (115 pages). <https://correlation-canada.org/nobel-vaccine-and-all-cause-mortality/> .
116. Hickey J and **Rancourt DG**. "Fisman et al.'s Psi (Ψ) index is ill-defined and leads to absurd interpretations". CORRELATION Research in the Public Interest, Brief Report, 30 November 2023 (9 pages). <https://correlation-canada.org/fisman-et-al-psi-index-is-ill-defined> | Also published at PubPeer:
<https://pubpeer.com/publications/3ACB55309DB4EF7D3518A4A5B2B65E#2> .
117. Hickey J, Rancourt DG. "**Comment on 'Impact of immune evasion, waning and boosting on dynamics of population mixing between a vaccinated majority and unvaccinated minority' by Fisman et al. (2024): Incorrect definition and application of a parameter Ψ** ". CORRELATION Research in the Public Interest, Brief Report, 25 April 2024 (21 pages). <https://correlation-canada.org/comment-on-fisman-et-al-2024/> |

<https://web.archive.org/web/20240503221902/https://correlation-canada.org/wp-content/uploads/2024/04/2024-04-25-Comment-on-Fisman-et-al-2024.pdf>
||| Hickey J, Rancourt DG. “**Comment on ‘Impact of immune evasion, waning and boosting on dynamics of population mixing between a vaccinated majority and unvaccinated minority’ by Fisman et al. (2024): Incorrect definition and application of a parameter Ψ** ”. *PLOS ONE*, comment?id=10.1371/annotation/5fd78aec-baf4-4af0-8b8e-8617df7db268 (Posted by ejokinen on 05 Jun 2024 at 14:45 GMT),
<https://web.archive.org/web/20240605215439/https://journals.plos.org/plosone/article/comment?id=10.1371/annotation/5fd78aec-baf4-4af0-8b8e-8617df7db268> | archive.today: <https://archive.ph/qc4mk>

118. Rancourt DG, Hickey J, Linard C. “**Spatiotemporal variation of excess all-cause mortality in the world (125 countries) during the Covid period 2020-2023 regarding socio economic factors and public-health and medical interventions**”. CORRELATION Research in the Public Interest, Report, 19 July 2024 (521 pages). <https://correlation-canada.org/covid-excess-mortality-125-countries> |
<https://web.archive.org/web/20240917114921/https://correlation-canada.org/wp-content/uploads/2024/07/2024-07-19-Correlation-ACM-World-125-countries-Rancourt-Hickey-Linard.pdf>

Selected Essays

119. Rancourt DG. “Gradual Change is not Progress”. Global Research, 03 May 2006, <https://www.globalresearch.ca/gradual-change-is-not-progress/2377>

120. Rancourt DG. “Some Big Lies of Money, Medicine and Science”. *NEXUS*, August-September 2010, pp. 1-5. | Archived: <https://archive.org/details/2010SomeBigLiesScienceNEXUS.Rancourt.draft2> | <https://nexusmagazine.com/product/some-big-lies-of-money-medicine-and-science/>

121. Rancourt DG. “Is the burning of fossil fuel a significant planetary activity?”. *Activist Teacher* (blog), 21 August 2010, <https://activistteacher.blogspot.com/2010/08/is-burning-of-fossil-fuel-significant.html> | Archived at archive.org (Wayback Machine)

122. Rancourt DG. “CO2 emission from fossil fuel burning is not more than from breathing”. *Activist Teacher* (blog), 22 August 2010, <https://activistteacher.blogspot.com/2010/08/co2-emission-from-fossil-fuel-burning.html> | Archived at archive.org (Wayback Machine)

123. Rancourt DG. "A Theory of Chronic Pain - A social and evolutionary theory of human disease and chronic pain". *Dissident Voice*, 26 December 2011, <https://dissidentvoice.org/2011/12/a-theory-of-chronic-pain/>

124. Rancourt DG. "Self-Image-Incongruence Theory of Individual Health". *Dissident Voice*, 26 October 2014, <https://dissidentvoice.org/2014/10/self-image-incongruence-theory-of-individual-health/>

125. Rancourt DG. "The Classic Political Theories of Socialism, Capitalism, and Anarchism are Unrealizable". *Dissident Voice*, 12 August 2015, <https://dissidentvoice.org/2015/08/the-classic-political-theories-of-socialism-capitalism-and-anarchism-are-unrealizable/>

126. Rancourt DG. "Towards a Rational Legal Philosophy of Individual Rights". *Dissident Voice*, 15 November 2016, <https://dissidentvoice.org/2016/11/towards-a-rational-legal-philosophy-of-individual-rights/>

127. Rancourt DG. "Distributed-Justice Solution for the Crisis in the Canadian Legal System". *Dissident Voice*, 16 May 2017, <https://dissidentvoice.org/2017/05/distributed-justice-solution-for-the-crisis-in-the-canadian-legal-system/>

128. Rancourt DG. "Cause of USA Meltdown and Collapse of Civil Rights". *Dissident Voice*, 07 September 2017, <https://dissidentvoice.org/2017/09/cause-of-usa-meltdown-and-collapse-of-civil-rights/>

129. Rancourt DG. "Canadian Societal Depravity is Anchored in Medical Care - Where good will provides cover for predatory population enslavement". *Dissident Voice*, 11 April 2018, <https://dissidentvoice.org/2018/04/canadian-societal-depravity-is-anchored-in-medical-care/>

130. Rancourt DG. "Social Animals have Two Modes of Being". *Dissident Voice*, 02 July 2018, <https://dissidentvoice.org/2018/07/social-animals-have-two-modes-of-being/>

131. Rancourt DG. "Stability and Dynamics of Individual Personality in a Dominance Hierarchy". *Dissident Voice*, 02 January 2019, <https://dissidentvoice.org/2019/01/stability-and-dynamics-of-individual-personality-in-a-dominance-hierarchy/>

132. Rancourt DG. "Laws that Punish for Hypothetical Harm Must be Abolished". *Dissident Voice*, 26 September 2019, <https://dissidentvoice.org/2019/09/laws-that-punish-for-hypothetical-harm-must-be-abolished/>

Papers in refereed conference proceedings

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|--------|---|-----------------------------------------------------------------------|
| AGU | = | American Geophysical Union |
| ASLO | = | American Society of Limnology and Oceanography |
| EGS | = | European Geophysical Society |
| EUG | = | European Union of Geosciences |
| GAC | = | Geological Association of Canada |
| ICAME | = | International Conference on the Applications of the Mössbauer Effect |
| ICC | = | International Clay Conference |
| ICHI | = | International Conference on Hyperfine Interactions |
| ICOBTE | = | International Conference on Biogeochemistry of Trace Elements |
| ISEB | = | International Symposium on Environmental Biogeochemistry |
| LACAME | = | Latin American Conference on the Applications of the Mössbauer Effect |
| MAC | = | Mineralogical Association of Canada |

133. J.M. Daniels, H.-Y. Lam, **Rancourt DG**, J.A. Westgate and D. York, 1983, Identification of the Origin of Volcanic Ash by Mössbauer Spectroscopy. Proceedings of the ICAME'83, Yu. M. Kagan and I.S. Lyubutin, Eds., vol. 5, p. 1671-1675 (Gordon and Breach Sci. Publ., NY, 1985).
134. **Rancourt DG**, J.M. Daniels, L.F. Nazar and G.A. Ozin, 1993, The Superparamagnetism of Very Small Particles Supported by Zeolite-Y, Hyperfine Interactions 15/16 (1983) 653-656; presented at the Sixth I.C.H.I., Groningen, July 4-8, 1983.
135. L.F. Nazar, G.A. Ozin, F. Hughes, J. Godber and **Rancourt DG**, 1983, Metal Atoms in solution: Versatile Reagents for Preparing Metal Cluster-Zeolite Catalysts; Application to the Selective Reduction of Carbon Monoxide to Butene, Journal of Molecular Catalysis, 21 (1983) 313-329; presented at an international conference on catalysis, Toronto, Summer 1983.
136. J.M. Daniels, **Rancourt DG**, and S.R. Julian, 1986, Magnetically Induced Electric Field Gradients, Hyperfine Interactions 28 (1986) 507-510; presented at I.C.A.M.E.-85, Leuven, Sept. 16-20.
137. S.R. Julian, J.A. Westgate, J.M. Daniels, **Rancourt DG** and P. Sullivan, 1987, A Comparison of the Titanomagnetites Produced by Several Volcanoes in Iceland, Hyperfine Interactions 41 (1988) 807-810; presented at I.C.A.M.E. -87, Melbourne, Aug. 17-21.

138. J.-Y.Ping, and **Rancourt DG**, Absolute Quantitative Analysis by Mössbauer Spectroscopy. *Hyperfine Interactions* 71 (1992) 1437-1440; presented at I.C.A.M.E.-91, Nanjing.

139. **Rancourt DG**, and J.-Y. Ping, Measured and Predicted Hyperfine Field Distributions (HFD's) in FCC Fe-Ni Collinear Ferromagnets, *Hyperfine Interactions* 69 (1991) 497-500; presented at I.C.A.M.E.-91, Nanjing.

140. J.-Y. Ping and **Rancourt DG**, Thickness Effects with Intrinsically Broad Absorption Lines. *Hyperfine Interactions* 71 (1992) 1433-1436; presented at I.C.A.M.E.-91, Nanjing.

141. I.A.D. Christie, **Rancourt DG**, G. Lamarche, M. Royer, H. Kodama and J.-L. Robert. Low Temperature Mössbauer Spectroscopy and Magnetism of Synthetic Annite Mica. *Hyperfine Interactions* 68 (1991) 315-318; presented at I.C.A.M.E.-91, Nanjing.

142. J.-Y. Ping, **Rancourt DG**, and Z.M. Stadnik, Voight-Based Methods for Quadrupole Splitting Distributions in Quasi-Crystals. *Hyperfine Interactions* 69 (1991) 493-496; presented at I.C.A.M.E.-91, Nanjing.

143. I.A.D. Christie, **Rancourt DG**, H. Kodama, E. Murad, and J.-L. Robert, Oxidation of Synthetic Annite Mica Characterized by Fe57 Mössbauer Spectroscopy; Hydrogen De-Intercalation and Host Layer Valence State Populations. NATO-ASI series B monograph of the proceedings of the NATO-ASI entitled "Chemical Physics of Intercalation II", (1993) p. 387-391, P. Bernier, J.E. Fisher, S. Roth, and S.A. Solin, Eds., Plenum, New York. Presented at the ASI: Chateau Bonas, France, June 29 - July 19, 1991.

144. J.-Y. Ping and **Rancourt DG**, Failure of the Direct HFD Extraction Method. *Hyperfine Interactions*, 92 (1994) 1209-1212; presented at ICAME 1993 (Vancouver, Aug. 93).

145. J.-Y. Ping and **Rancourt DG**, Effective Method of Direct QSD Extraction Using Combined Partial Deconvolution. *Hyperfine Interactions*, 92 (1994) 1203-1207; presented at ICAME 1993 (Vancouver, Aug. 1993).

146. L. Dou, R.J.W. Hodgson and **Rancourt DG**. Bayesian inference theory applied to hyperfine field distribution extraction. Presented at ICAME 1995 (Rimini, Sept. 1995). Conference Proceedings, Vol. 50, ICAME-95, I. Ortalli (Ed.), Italian Physical Society, 1996, 883-886.

147. P.H.Mercier J, **Rancourt DG** and R.G. Berman. Aspects of the crystal chemistry of annite mica. Presented at ICAME 1995 (Rimini, Sept. 1995). Conference Proceedings, Vol. 50, ICAME-95, I. Ortalli (Ed.), Italian Physical Society, 1996, 789-792.

148. M.-Z. Dang and **Rancourt DG**. Monte Carlo simulations of temperature and composition dependent hyperfine field distributions in metallic alloys. Presented at ICAME 1995 (Rimini, Sept. 1995). Conference Proceedings, Vol. 50, ICAME-95, I. Ortalli (Ed.), Italian Physical Society, 1996, 367-370.

149. K. Lagarec and **Rancourt DG**. A New Model for Multidimensional Distributions of Hyperfine Parameters in Mössbauer Spectroscopy. ICC'97 Proceedings: "Clays for Our Future" H. Kodama, A.R. Mermut, and J.K. Torrance (chief editors), Published by the ICC-97 Organizing Committee, Ottawa, Canada (1999) ISBN 0-9686314-0-7. Pages 215-220.

150. M.-Z. Dang, **Rancourt DG**, G. Lamarche, and M.E. Evans. Mineralogical Analysis of a Loess/ Paleosol Couplet from the Chinese Loess Plateau. ICC'97 Proceedings: "Clays for Our Future" H. Kodama, A.R. Mermut, and J.K. Torrance (chief editors), Published by the ICC-97 Organizing Committee, Ottawa, Canada (1999) ISBN 0-9686314-0-7. Pages 309-315.

151. A.A.T. Shabani, **Rancourt DG**, and A.E. Lalonde. Determination of cis- and trans- Fe^{2+} Populations in 2M1 Muscovite by Mössbauer Spectroscopy. ICC'97 Proceedings: "Clays for Our Future" H. Kodama, A.R. Mermut, and J.K. Torrance (chief editors), Published by the ICC-97 Organizing Committee, Ottawa, Canada (1999) ISBN 0-9686314-0-7. Pages 243-248.

152. P.H. Mercier J. **Rancourt DG**, R.G. Berman, and J.-L. Robert.. Control of Site Populations, at Synthesis, by Inter-Sheet Differential Thermal Expansion in a T-O-T Layer Silicate. ICC'97 Proceedings: "Clays for Our Future" H. Kodama, A.R. Mermut, and J.K. Torrance (chief editors), Published by the ICC-97 Organizing Committee, Ottawa, Canada (1999) ISBN 0-9686314-0-7. Pages 221-228.

153. M.-Z. Dang, **Rancourt DG**, J.E. Dutrizac, G. Lamarche, and R. Provencher. Protohematite-Hydrohematite-Hematite Structuro-Chemical Phase Relationships in Hematite-Like Materials. ICC'97 Proceedings: "Clays for Our Future" H. Kodama, A.R. Mermut, and J.K. Torrance (chief editors), Published by the ICC-97 Organizing Committee, Ottawa, Canada (1999) ISBN 0-9686314-0-7. Pages 265-270. (selected for oral presentation).

154. T.P. Murphy, A. Lawson, **Rancourt DG**, M. Kumagai, and M. Sakai. Akanoi Bay, Lake Biwa Seasonal Changes in Porewater Phosphorus. Society for International Limnology, Dublin, August 10-14, 1998. In press, Verh. Int. Verein. Limnol. 48(1998).

155. T.P. Murphy, A. Lawson, M. Kumagai, and **Rancourt DG**. Sediment phosphorous release in Lake Biwa. 4th International Symposium on Sediment Quality Assessment (SQA'2000), October 24-27, 2000, Otsu, Japan. Submitted to proceedings.

156. S. Alpay, L. Lortie, W.D. Gould, **Rancourt DG**, B. Mayer, F. Rosa, H.K.T. Wong, S.S. Dixit, A.S. Dixit, C. Provost, and G.E.M. Hall. Diagenetic metal remobilization versus chronological metal loading in lake sediments. 6th ICOBTE, Guelph, Ontario, July 29 to August 2, 2001, ICOBTE 2001 Conference Proceedings, Extended abstract GO136.

157. **Rancourt DG**, P.-J. Thibault, and F.G. Ferris. Resolution and quantification of Fe sorbed to bacterial cell walls, biogenic ferrihydrite, and abiotic ferrihydrite by cryogenic ⁵⁷Fe Mössbauer spectroscopy. 6th ICOBTE, Guelph, Ontario, July 29 to August 2, 2001, ICOBTE 2001 Conference Proceedings, Extended abstract GO448.

Invited refereed plenary and special session papers at international conferences and workshops

158. **Rancourt DG**, B. Hun and S. Flandrois, Magnetic Properties of Intercalated Transition Metal Chlorides which have Ferromagnetic In-Plane Coupling. Colloque Franco-Japonais sur les Composés d'Insertion de Graphique, École Normale Supérieure, Paris, Oct. 8-10, 1985, Ann. Phys. 11 (1986) C2 107-116.

159. **Rancourt DG**, Magnetic Phenomena in Layered and Intercalated Compounds. NATO Advanced Study Institute entitled Chemical Physics of Intercalation Castera Verdyzan, France, June 10-19, 1987, NATO-ASI Ser. B: Physics, 172 (1987) 79-103.

160. **Rancourt DG**, Pervasiveness of Cluster Excitations as Seen in the Mössbauer Spectra of Magnetic Materials. International Conference on the Applications of the Mössbauer Effect-87, Melbourne, Australia, August 17-21, 1987: Hyperfine Interactions 40 (1988) 183-194.

161. **Rancourt DG**. Mössbauer Spectroscopy in Clay Science. ICC'97 Proceedings: "Clays for Our Future" H. Kodama, A.R. Mermut, and J.K. Torrance (chief editors), Published by the ICC-97 Organizing Committee, Ottawa, Canada (1999) ISBN 0-9686314-0-7. Pages 201-205. (short version). Hyperfine Interactions 117 (1998) 3-38 (long version).

162. A.E. Lalonde, **Rancourt DG**, and J.Y. Ping. Accuracy of ferric/ferrous determinations in phyllosilicate: A comparison of Mössbauer and wet-chemical methods. ICC'97 Proceedings: "Clays for Our Future" H. Kodama, A.R. Mermut, and J.K. Torrance (chief editors), Published by the ICC-97 Organizing Committee, Ottawa, Canada (1999) ISBN 0-9686314-0-7. Pages 249-257.

163. R.B. Scorzelli, **Rancourt DG**, A.B. Dominguez, G. Poupeau, C.C. de Bon, M.E. Cisternas. Evidence by Mössbauer spectroscopy of the intergrowth

tetrataemite/antitaemite in the Vaca Muerta mesosiderite. 60th Meteoritical Society Meeting, Hawaii, July 21-25, 1997. Meteoritics and Planetary Science 32(4) Supplement (1997) A117. (extended abstract)

164. **K. Lagarec, Rancourt DG**, S.K. Bose, and R.A. Dunlap. First observation of a composition-controlled low-moment/high-moment transition in the FCC Fe-Ni system: Implications regarding Invar and anti-Invar behaviours. Phase Transitions 75 (2002) 211-219. International Symposium on Structure and Dynamics of Heterogeneous Systems, August 28-29, 2000, Duisburg, Germany.
165. **Rancourt DG**. Invar behaviour in Fe-Ni alloys is predominantly a local moment effect arising from the magnetic exchange interactions between high moments. Phase Transitions 75 (2001) 201-209. International Symposium on Structure and Dynamics of Heterogeneous Systems, August 28-29, 2000, Duisburg, Germany.
166. **Rancourt DG**. Magnetism of Earth, planetary, and environmental nanoparticles. In: Nanoparticles and the Environment, J.F. Banfield and A. Navrotsky (editors), Reviews in Mineralogy and Geochemistry 44 (2001) 217-292 (Chapter 7). MSA Workshop, December 7-9, 2001, UC-Davis, CA, USA.

Review papers and book forwards

167. **Rancourt DG**, The Invar Problem, Physics in Canada 45(1) January (1989) 3-10.
168. A.E. Lalonde and **Rancourt DG**, Les Micas: Des Minéraux Importants pour Comprendre l'Origine des Roches Granitiques. Interface, Sept.-Oct. (1991) 24-29.
169. **Rancourt DG**. Mössbauer spectroscopy in clay science – Forward. Hyperfine Interactions 117 (1998) 1-3.

Books, Monographs, and Handbooks authored

170. **Rancourt DG** and K. Lagarec. *ICC'97 Mössbauer Workshop Handbook*, 1997, 144 pages.
171. **Rancourt DG**. *Science for Activists* (Beta version, 2005), 62 pages. [Developed for and used in Denis Rancourt's university course "PHY 1703: Physics and the Environment".]

172. **Rancourt DG.** *Hierarchy and free expression in the fight against racism*, Stairway Press, 2013, 175 pages, ISBN 978-0-9859942-8-0.

Chapters in books

(see also chapters related to invited talks, above)

173. **Rancourt DG.** Analytical Methods for Mössbauer Spectral Analysis of Complex Materials. Chapter 6, in: *Mössbauer Spectroscopy Applied to Magnetism and Materials Science*, Vol. 2, G.J. Long and F. Grandjean, Eds., Plenum Press, 1996, pages 105-124.

174. **Rancourt DG.** There was no pandemic. Chapter 34, in: *Canary In a Covid World: How Propaganda and Censorship Changed Our (My) World*, C.H. Klotz, Ed., Canary House Publishing, 2023, pages 420-430. ISBN: 978-1-7390525-3-9. | https://web.archive.org/web/20240806071424/https://denisrancourt.ca/uploads_entri es/1687643289487_Denis%20Rancourt%20essay%20-%20There%20Was%20No%20Pandemic%20-%20pub.pdf

Books Edited

175. **Rancourt DG** (Ed.) *Mössbauer Spectroscopy in Clay Science*. A special topic issue of *Hyperfine Interactions* 117 (1998) pp.436 (Invited and selected topics from the Mössbauer Symposium of ICC'97).

176. H. Kodama et al. (Eds., including associate editor **Rancourt DG**) *ICC'97 Proceedings: "Clays for Our Future"* H. Kodama, A.R. Mermut, and J.K. Torrance (chief editors), Published by the ICC-97 Organizing Committee, Ottawa, Canada (1999) ISBN 0-9686314-0-7. pp.825.

Invited plenary, keynote and special sessions talks or panels at regional, national, and international conferences (no paper)

177. **Rancourt DG**, Truly Quantitative Fe^{3+} and Fe^{2+} Amounts in Iron Bearing Minerals, Mineral Physics Special Session at GAC-MAC-90, Vancouver, May 1990. (GAC = Geological Association Canada, MAC = Mineralogical Association Canada).

178. **Rancourt DG**, Mössbauer Spectral Lineshape Models and Spectral Analysis Methods. Mössbauer Workshop at the 28th Annual Meeting of the Clay Minerals Society, NASA Planetary Science Laboratory, Houston, Texas, October 1991.

179. **Rancourt DG**, Mössbauer Spectroscopy of Phyllosilicates. Mössbauer Workshop at the 28th Annual Meeting of the Clay Minerals Society, NASA Planetary Science Laboratory, Houston, Texas, October 1991.

180. **Rancourt DG**, A.E. Lalonde, G. Lamarche, J.-Y. Ping, M. Royer, I.A.D. Christie, P. Tume, and M.-Z. Dang, Mössbauer Spectroscopy, Magnetism, Crystal Chemistry, Oxidation, and Optical Properties of Natural and Synthetic Micas. Int. Conf. Applications Mössbauer Effect 1991, Nanjing, China, September 1991.

181. **Rancourt DG**, Interplay between Magnetism and Crystal Chemistry in Minerals. Magnetism in Minerals Session, AGU-CGU-MSA 1992 Spring Meeting, Montreal, 12-16 May 1992. Abstract published in EOS Spring Meeting Supplement. Transactions, American Geophysical Union, 73(14) (1992) 97.

182. **Rancourt DG**. Kinetics of the Oxyannite Reaction in Biotite: Microscopic Mechanism and Relation to Dehydroxylation. Plenary, Latin American Conference on the Applications of the Mössbauer Effect, Santiago, Chile, 7-11 November, 1994.

183. **Rancourt DG**, Structural Missfit Effects in the Crystal Chemistry of Annite: Towards a Single-Mineral Geothermometer/Oxygen Fugacity Probe. Plenary, Latin American Conference on the Applications of the Mössbauer Effect, Santiago, Chile, 7-11 November, 1994.

184. **Rancourt DG**, Extraction and Interpretation of Quadrupole Splitting Distributions in Layer Silicates. Plenary, Latin American Conference on the Applications of the Mössbauer Effect, Santiago, Chile, 7-11 November, 1994.

185. **Rancourt DG** and R.B. Scorzelli, Low-spin FCC Fe-Ni alloy phase (γ_{LS} -phase) proposed as a new meteoritic mineral. Plenary, Int. Conf. Applications Mössbauer Effect 1995, Rimini, Italy, 10-16 September, 1995.

186. **Rancourt DG**, *Mechanisms, at synthesis, for inter-layer lattice matching in layer silicates*. Special session entitled “Strain Accommodation in Materials”, CAP Congress, Ottawa, June 16-19, 1996.

187. **Rancourt DG**. *Quantitative near neighbour anion coordination populations and strong short-range F-F avoidance in synthetic annite-fluorannite measured by Mössbauer spectroscopy*. ICC'97, Ottawa, June 15-21, 1997.

188. P.-J. Thibault, D. Mavrocordatos, **Rancourt DG**, D. Fortin, and G. Lamarche. *Comparisons of biogenic and abiotic hydrous ferric oxides using Mössbauer spectroscopy*. Selected for oral contribution at ICAME-99 (10% selection rate), Garmisch-Partenkirchen, Germany, August 29 - September 3, 1999.

189. P.H. Mercier J, A.A.T. Shabani, **Rancourt DG**, A.E. Lalonde, R.G. Berman, and J.-L. Robert. *Quadrupole splitting distributions of biotite*. Selected for oral contribution at ICAME-99 (10% selection rate), Garmisch-Partenkirchen, Germany, August 29 - September 3, 1999.

190. K. Lagarec and **Rancourt DG**. *High-moment to low-moment transition does occur in the Fe-Ni system but thermal excitation of the low-moment phase does not cause the Invar effect*. Invited plenary talk at ICAME-99, Garmisch-Partenkirchen, Germany, August 29 - September 3, 1999.

191. D. Mavrocordatos, D. Fortin, and **Rancourt DG**. *Characterization of biogenic Fe-oxide precipitates by X-ray diffraction, Mössbauer spectroscopy, and analytical electron microscopy*. Invited plenary talk at ISEB-XIV, Deerhurst Resort, Huntsville, Ontario, September 26-30, 1999.

192. **Rancourt DG**, F.G. Ferris, and D. Fortin. *Sorbed iron on the cell wall of *Bacillus subtilis* characterized by Mössbauer spectroscopy: Evidence for bioreduction*. Invited plenary talk at ISEB-XIV, Deerhurst Resort, Huntsville, Ontario, September 26-30, 1999.

193. **Rancourt DG**. *Development of a single-mineral multi-variable geosensor based on the crystal chemistry of biotite*. The invited plenary talk at 41st Mössbauer Spectroscopy Discussion Group Meeting, The Royal Society of Chemistry, September 4-5, 2000, University of Greenwich, UK.

194. **Rancourt DG**. *Mössbauer spectroscopy of mud: Towards modeling complex environmental processes*. Invited Plenary Lecture (1 of 8), LACAME-02, Panama City, September 22-27, 2002.

195. **Rancourt DG**. *RecoilTM: Its development, its structure, and examples of its use*. Invited Plenary Talk (1 of 8), LACAME-02, Panama City, September 22-27, 2002.

196. **Rancourt DG**. *Advances in characterizing nanophase materials and composites*. Invited Symposium Talk (1 of 3), Nanophase Materials Symposium (2.8), Goldschmidt Geochemistry Conference, Copenhagen, June 6-12, 2004. Abstract 554-2.8.21. *Geochimica Cosmochimica Acta* 68(11S), 2004, p.A220.

197. **Rancourt DG**. *Adventures in mineral physics: From environmental nanoparticles to meteoritic anti-Invar via layer silicate surprises*. Invited Keynote Lecture (1 of 11),

82nd Annual Meeting of the Deutsche Mineralogische Gesellschaft (DMG) (German Mineralogical Association), Karlsruhe, September 20-22, 2004.

198. R.J. Evans, **Rancourt DG**, M. Grodzicki. *Electronic structure calculations for Mössbauer spectroscopy of disordered materials*. Invited talk; New applications of spectroscopy in mineral sciences session. 19th International Mineralogical Association Conference, Kobe, Japan, July 23-28, 2006. (talk presented by DGR)
199. **Rancourt DG**. *Nature and genesis of ferrihydrite*. Invited talk; Recent progress of nanoparticle studies in Earth and planetary sciences session. 19th International Mineralogical Association Conference, Kobe, Japan, July 23-28, 2006.
200. **Rancourt DG**. *Democracy is direct action*. Invited and selected talk/workshop at the ImagineOttawa – Ottawa Social Forum, October 20, 2007, Ottawa, Ontario.
201. **Rancourt DG**. *Anarchism in Academia Now!* Closing keynote talk at Resisting the University conference, March 3-7, 2008, Students for a Democratic Society, UBC, Vancouver, BC.
202. Invited panellist, with two others. April 15th 9:30-12am round-table: *To find yourself in the ranks of resistances*. Thinking about global justice: Acting locally. 2nd symposium of the Laboratory for Justice Studies and Research, April 14-15, 2008, Department of Criminology, University of Ottawa.
203. **Rancourt DG**. *Minorités, solidarité, résistance, et confrontation : La place de l'anarchisme dans l'enseignement des sciences*. Invited keynote (90 minutes) in Colloque 611: Enseignement des sciences en milieu francophone minoritaire, hier et aujourd'hui: Quels espoirs pour demain? ACFAS, May 5-9, 2008, Québec.
204. Invited panellist, closing panel, with six others. *Table ronde: Education scientifique en milieu francophone minoritaire: Quels espoirs pour demain?* Colloque 611: Enseignement des sciences en milieu francophone minoritaire, hier et aujourd'hui: Quels espoirs pour demain? ACFAS, May 5-9, 2008, Québec.
205. **Rancourt DG**. *Making physics relevant by academic squatting*. Invited speaker in the session: Down from the Ivory Tower: Physics Teachers and Education Researchers as Activists. 2008 American Association of Physics Teachers (AAPT) Conference, July 19-23, Edmonton, Alberta.
206. **Rancourt DG**. "From Masking to Mortality Rates: COVID-19 and What the Science Tells Us". Invited plenary speaker in the session: "Show Us the Science", National Vaccine Information Center (NVIC)'s Fifth International Public Conference on Vaccination (3 days in October 2020), 16 October 2020 (39 minutes).

207. **Rancourt DG**. "The False Pandemic". Invited plenary talk at: Gold Standard Covid Science in Practice: An Interdisciplinary Symposium (2 days, >20 speakers), 29 July 2021 (20 minutes), organized by Doctors for Covid Ethics, hosted by UK Column.

208. **Rancourt DG**. "Realities of Health". Invited special session talk at: International Crisis Summit IV (ICS4) (3 days, >50 speakers), 17 November 2023 (20 minutes), Bucharest, Romania. <https://rumble.com/v3x6q0o-denis-rancourt-realities-of-health-very-interesting.html> .

209. **Rancourt DG**. "All-cause mortality worldwide and Romania". Invited plenary talk at: International Crisis Summit IV (ICS4) (3 days, >50 speakers), 18 November 2023 (25 minutes), Parliament, Bucharest, Romania. <https://rumble.com/v3xza31-denis-rancourt-at-ics4-all-cause-mortality-worldwide-and-romania-18-nov-2023.html>

Posters and talks presented at academic conferences (no paper)

210. **Rancourt DG**, J.M. Daniels and H.-Y. Lam, Spin Orientation in Antiferromagnetic Fe(2-x)Cr(x)As. Annual Meeting of the A.P.S., San Francisco, California, January 1982.

211. **Rancourt DG**, J.M. Daniels and H.-Y. Lam, Spin Structure of Fe₂As. Annual Meeting of the A.P.S., New York City, January 1983.

212. J.M. Daniels, H.-Y. Lam, **Rancourt DG**, J.A. Westgate and D. York, Identification of the Origin of Volcanic Ash by Mössbauer Spectroscopy. Annual Meeting of the A.P.S., New York, January, 1983.

213. S.R. Julian, J.M. Daniels, H.-Y. Lam and **Rancourt DG**, Polarization of Magnetic Order in Fe_{1+x}Pt_{3-x}. Annual Meeting of the A.P.S., New York, January, 1983.

214. **Rancourt DG** and J.M. Daniels, New Effects in the Mössbauer Spectra of Superparamagnetic Particles. Annual Meeting of the American Physical Society, San Antonio, Texas, January 1984.

215. **Rancourt DG**, B. Hun and S. Flandrois, Magnetic Study of a New Bi-Intercalation Compound FeCl₃-NiCl₂-Graphite: An ideally Decoupled Bimagnetic System. 18th Biennial Conference on Carbon, Worcester, Ma., July 19-24, 1987.

216. A.E. Lalonde and **Rancourt DG**, Accuracy of Mössbauer and Wet-Chemistry Fe³⁺/Fe²⁺ Determinations in Biotite: Implications for Mineralogical and Petrological Studies, GAC-MAC-90, Vancouver, May 1990.

217. **Rancourt DG**, M. Royer, and M.-Z. Dang, Mössbauer Recoilless Fractions of Octahedral Fe^{3+} and Fe^{2+} in Mica, GAC-MAC-90, Vancouver, May 1990.

218. P. Tume, M. Royer, and **Rancourt DG**, Proton Diffusion in Mica, GAC-MAC-90, Vancouver, May 1990.

219. **Rancourt DG**, Novel Real Magnetic Systems Amenable to Theoretical Analysis, Stat. Phys. 45th Par., Montreal, October 20, 1990.

220. D.J. Dunlop, X. Song, Rancourt DG, Ferromagnetism in biotites, AGU-MSA Spring Meeting 1991. Abstract published in Spring Session Supplement of EOS, Transactions, American Geophysical Union, 72(17) (1991) 97.

221. I.A.D. Christie, **Rancourt DG**, H. Kodama, J.-L. Robert, Use of High and Low Temperature Mössbauer Measurements in the Determination of the Magnetic Structure of Micas. Magnetism in Minerals Session, AGU-CGU-MSA 1992 Spring Meeting, Montreal, 12-16 May 1992. Abstract published in Spring Session Supplement of EOS, Transactions, American Geophysical Union, 73(14) (1992) 97.

222. **Rancourt DG**, General Method for Applying MFT to Disordered Magnetic Alloys, Stat. Phys. 45th Par., Clarkson University, Potsdam, N.Y., October 3, 1992.

223. M. Dubé and **Rancourt DG**, Application of a Mean Field Method to Disordered FCC Fe-Ni Alloy, Stat. Phys. 45th Par., Clarkson University, Potsdam, N.Y., October 3, 1992.

224. M.-Z. Dang, **Rancourt DG**, and J.Y. Ping, Cause of the Fe-57 Hyperfine Field in FCC Fe-Ni. ICAME 93, Aug. 8-14, 1993, Vancouver, B.C.

225. A.E. Lalonde and **Rancourt DG**, Method for Getting Site-Specific EFG Information from Sheet Silicates: Application to Micas, ICAME 1993, Aug. 8-14, 1993, Vancouver, B.C.

226. A.E. Lalonde, **Rancourt DG**, and G.Y. Chao, Fe-Bearing Trioctahedral Micas from Mont Saint-Hilaire, Quebec, GAC-MAC-94, May 1994, Waterloo, Ontario. Abstract accepted.

227. **Rancourt DG** and G. Klingelhöfer. Possibility of a Mössbauer Resonant-Electron Microscope. Fourth Seeheim Workshop on Mössbauer Spectroscopy, May 1994, Seeheim, Germany.

228. **Rancourt DG** and J.Y. Ping. Algorithms and programs for data treatment and spectral analysis in Mössbauer spectroscopy. ICAME'95, Sept. 1995, Rimini, Italy.

229. A.E. Lalonde and **Rancourt DG**. Determination of accurate Fe-site populations in Mica-Fe and Mica-Mg geochemical standards by Mössbauer spectroscopy. ICAME'95, Sept. 1995, Rimini, Italy.

230. L. Dou, R.J.W. Hodgson and **Rancourt DG**. Bayesian inference theory applied to hyperfine field distribution extraction. CAM'95 (CAP/APS/SMF joint meeting) 11-16 June 1995.

231. P.H. Mercier J, **Rancourt DG** and R.G. Berman. An Fe-57 Mössbauer spectroscopy study of synthetic layer silicates of the phlogopite-annite series having various A \square contents. CAP Congress, Ottawa, June 16-19, 1996.

232. M.-Z. Dang and **Rancourt DG**. Testing microscopic models of the hyperfine fields in Fe-Ni alloys. CAP Congress, Ottawa, June 16-19, 1996.

233. K. Lagarec, **Rancourt DG**, R.B. Scorzelli and I. de Souza Azevedo. Investigation of Fe-Ni alloys in meteorites using Mössbauer spectroscopy. CAP Congress, Ottawa, June 16-19, 1996.

234. L. Dou, R.J.W. Hodgson and **Rancourt DG**. A preliminary study of a biotite spectrum using the Bayesian inference theory and the Gibbs sampling. CAP Congress, Ottawa, June 16-19, 1996.

235. M.-Z. Dang and **Rancourt DG**. Analysis of complex solid-phase systems: industrial and environmental. OCMR Partnerships 1997, Toronto, June 5, 1997.

236. R.B. Scorzelli, **Rancourt DG**, A.B. Dominguez, G. Poupeau, C.C. de Bon, and M.E. Cisternas. Detection of tetrataenite/antitaenite intergrowth in Fe-Ni metal of the Vaca Muerta mesosiderite. ICAME '97, Rio de Janeiro, Brazil, August 1997.

237. **Rancourt DG** and M.-Z. Dang. Multi-Dimensional Solid Phase Analysis Applied to Aquatic Sediments and Ancient Sedimentary Deposits. EnviroAnalysis-98, Ottawa, May 11-14, 1998.

238. J.I. Goldstein, R.J. Reisener, **Rancourt DG**, K. Lagarec, and R.B. Scorzelli. The Santa Catharina Meteorite: A Cloudy Zone Microstructure Consisting of a Fine Intergrowth of Tetrataenite and Antitaenite. 61st Meteoritical Society Meeting, Dublin, July 27-31, 1998. Meteoritics and Planetary Science, Supplement, 33(4) (1998) A59-A60. (extended abstract)

239. **Rancourt DG** and M.-Z. Dang. Multi-Dimensional Solid Phase Analysis (MDSPA) Applied to Complex Materials. MMO Partnerships 1998, Toronto, June 10, 1998.

240. K. Lagarec and **Rancourt DG**. Antitaenite: A new Meteoritic Mineral That Is Non-Magnetic to the Core. Materials Science at the 45th Parallel. McGill University, Oct. 23-24, 1998.

241. P.H.Mercier J and **Rancourt DG**. Inter-Sheet Differential Thermal Expansion in Layered Silicate Materials. Materials Science at the 45th Parallel. McGill University, Oct. 23-24, 1998.

242. M.-Z. Dang, **Rancourt DG**, J.E. Dutrizac, G. Lamarche, and R. Provencher. Phase Relations in Hematite-Like Materials and the Morin Transition. Materials Science at the 45th Parallel. McGill University, Oct. 23-24, 1998.

243. P.C. Piilonen, **Rancourt DG**, A.E. Lalonde, and A.M. McDonald. Mössbauer spectroscopy of astrophyllite-group minerals from Mont Saint-Hilaire, Québec. GAC-MAC, Sudbury, Ontario, May 26-28, 1999.

244. P.H.Mercier J, **Rancourt DG**, and J.-L. Robert. Étude expérimentale de la solution solide annite-sydérophyllite: impact de la teneur en aluminium sur la cristallochimie des micas. 67^e Congr
EUROGAFAS, University of Ottawa, May 1999.

245. **Rancourt DG** and M.-Z. Dang. Someting new in hematite: Not just hydroxyls and cation vacancies but also structurally incorporated water. ICAME-99, Garmisch-Partenkirchen, Germany, August 29 - September 3, 1999.

246. K. Lagarec and **Rancourt DG**. General method for removing non-uniform absorber thickness effects from Mössbauer spectra. ICAME-99, Garmisch-Partenkirchen, Germany, August 29 - September 3, 1999.

247. M.-Z. Dang, **Rancourt DG**, and A.E. Lalonde. Strategy for and limitations of solid-phase identification and discrimination using room temperature Fe-57 Mössbauer spectroscopy. ICAME-99, Garmisch-Partenkirchen, Germany, August 29 - September 3, 1999.

248. R.J. Evans, J.S. Tse, and **Rancourt DG**. Electronic structure calculations of the electric field gradient parameters in distorted FeO_6^{10-} octahedra. ICAME-99, Garmisch-Partenkirchen, Germany, August 29 - September 3, 1999.

249. P.-J. Thibault, Ken Lagarec, **Rancourt DG**, G. Lamarche, D. Mavrocordatos, and D. Fortin. Structure, stoichiometry, and microstructure of ferrihydrite. XIVth International Symposium on Environmental Biogeochemistry, Deerhurst Resort, Huntsville, Ontario, September 26-30, 1999.

250. K. Lagarec, **Rancourt DG**, S.K. Bose, and R.A. Dunlap. Observation of a composition-controlled low-moment/high-moment transition in the FCC Fe-Ni system:

Implications regarding Invar and anti-Invar behaviours. 41st Mössbauer Spectroscopy Discussion Group Meeting, The Royal Society of Chemistry, September 4-5, 2000, University of Greenwich, UK.

251. K. Lagarec and **Rancourt DG**. Recoil: Advanced Windows-based spectral analysis and data treatment software for Mössbauer spectroscopy. 41st Mössbauer Spectroscopy Discussion Group Meeting, The Royal Society of Chemistry, September 4-5, 2000, University of Greenwich, UK.

252. J.B. Percival, J.M. Aylsworth, **Rancourt DG** and A. Fritz. Analysis of colour rhythmites in sensitive marine clays (Ieda clay) from Eastern Canada. 12th International Clay Conference (ICC-12), July 22-28, 2001, Bahia Blanca, Argentina.

253. R. James Evans, **Rancourt DG**, J.S. Tse, and M. Grodzicki. Theoretical quadrupole splitting distributions of octahedral Fe²⁺ in layer silicates. ICAME-2001, September 2-7, 2001, Oxford, UK.

254. K. Lagarec and **Rancourt DG**. Mössbauer spectroscopy provides a definitive solution to the Invar problem. Selected oral, LACAME-02, Panama City, September 22-27, 2002.

255. **Rancourt DG**, P.H. Mercier J, E.J. Evans, M. Grodzicki, A.A.T. Shabani, and A.E. Lalonde. Resolving the hydrogen-loss and vacancy reactions in the oxidation of Fe-bearing layer silicates. Poster, LACAME-02, Panama City, September 22-27, 2002.

256. **Rancourt DG**, M.-Z. Dang, P.-J. Thibault, S. Bonneville, T. Behrends, P. Van Cappellen. Hematite (α -Fe₂O₃): A complex oxyhydroxide system inspiring sustained fascination among Mössbauer spectroscopists. Poster, LACAME-02, Panama City, September 22-27, 2002.

257. **Rancourt DG**, N. Sabourin, M.-Z. Dang, C. van der Zee, D. Roberts and P.-J. Thibault. Recoil Mössbauer spectral analysis software applied to complex natural samples. Poster, LACAME-02, Panama City, September 22-27, 2002.

258. **Rancourt DG**, I. L'Heureux, S. Katsev, B. George, C. McDonald. Lake Sediment Structure and Evolution (LSSE) research: Towards predictive reaction transport models. Talk, 38th Central Canadian Symposium on Water Quality Research, organized by CAWQ and hosted by NWRI, Burlington, Ontario, February 10-11, 2003.

259. S. Katsev, I. L'Heureux, **Rancourt DG**. Modeling the mechanisms of phosphorous releases from sediments. Poster, EGS-AGU-EUG Joint Assembly, Nice, France, April 2003.

260. S. Katsev, **Rancourt DG**, I. L'Heureux. dSED: A database tool for modeling sediment early diagenesis. Poster, EGS-AGU-EUG Joint Assembly, Nice, France, April 2003.

261. S. Katsev, I. L'Heureux, **Rancourt DG**. Numerical models of phosphorus releases in sediments Poster. Gordon Research Conference on Permeable Sediments, Lewiston (Maine), June 15-20, 2003.

262. **Rancourt DG**. Influence of Bacteria on the Sequestration of Iron and the Precipitation of Hydrous Ferric Oxides: A Cryogenic ^{57}Fe Mössbauer Spectroscopy Study. Talk, International Workshop on Biogeochemical Processes Involving Iron Minerals in Natural Waters, November 16-21, 2003, Monte Verita, Switzerland. Extended abstract published in abstract book.

263. C. van der Zee, D.R. Roberts, **Rancourt DG**, C.P. Slomp. Nanogoethite is the dominant reactive iron oxyhydroxide phase in lake and marine sediments. Talk, International Workshop on Biogeochemical Processes Involving Iron Minerals in Natural Waters, November 16-21, 2003, Monte Verita, Switzerland. Extended abstract published in abstract book.

264. C. Hyacinthe, H. De Waarde, **Rancourt DG**, P. Van Cappellen. Formation and reactivity of iron phosphate minerals. Talk, International Workshop on Biogeochemical Processes Involving Iron Minerals in Natural Waters, November 16-21, 2003, Monte Verita, Switzerland. Extended abstract published in abstract book.

265. P.-J. Thibault, **Rancourt DG**, J.E. Dutrizac, C. Hyacinthe, P. Van Cappellen, A. Delgado. Mineralogical characterization of aquatic colloid analogues: Synthetic phosphate-coprecipitated hydrous ferric oxide nanophases. Poster, International Workshop on Biogeochemical Processes Involving Iron Minerals in Natural Waters, November 16-21, 2003, Monte Verita, Switzerland. Extended abstract published in abstract book.

266. F. Gonzalez-Lucena, **Rancourt DG**, P.-J. Thibault, M.-Z. Dang, G. Lamarche, J.E. Dutrizac, A. Delgado, S. Bonneville, T. Behrends. Mineral magnetometry of synthetic micro-crystalline and nanophase iron oxides and oxyhydroxides. Talk, International Workshop on Biogeochemical Processes Involving Iron Minerals in Natural Waters, November 16-21, 2003, Monte Verita, Switzerland. Extended abstract published in abstract book.

267. I. L'Heureux, S. Katsev, **Rancourt DG**. An approximate treatment of pH-dependent adsorption in reaction-transport models. Talk, ASLO 2004, February 15-20, 2004, Honolulu, Hawaii.

268. S. Katsev, I. L'Heureux, **Rancourt DG**. A method for investigating interactions among chemical species in sediments: Application to sulfate-assisted phosphorous mobilization. Talk, ASLO 2004, February 15-20, 2004, Honolulu, Hawaii.

269. **Rancourt DG**, B. George, M.-Z. Dang, K. Telmer. Solid-phase characterization of sediments from 100 boreal forest lakes. Poster, AGU 2004 Joint Assembly, May 17-21, 2004, Montreal, Canada. Eos Transactions, AGU, 85(17) (2004), Joint Assembly Supplement, Abstract B33B-03, page JA80.

270. **Rancourt DG**, P.-J. Thibault. Bacteria are redox active sorbants that do not template nucleating hydrous ferric oxide. Talk, Goldschmidt Geochemistry Conference, Copenhagen, June 6-12, 2004. Abstract 1524-2.7.14. Geochimica Cosmochimica Acta 68(11S), 2004, p.A199.

271. B. George, **Rancourt DG**, M.-Z. Dang, K. Telmer. Sediment Fe mineralogy of 100 boreal forest lakes. Poster, Goldschmidt Geochemistry Conference, Copenhagen, June 6-12, 2004. Abstract 940-4.2.53. Geochimica Cosmochimica Acta 68(11S), 2004, p.A368.

272. Rancourt DG, B. George, M.-Z. Dang, and K. Telmer. Solid-phase characterization of sediments from 100 boreal forest lakes. Poster. 82nd Annual Meeting of the Deutsche Mineralogische Gesellschaft (DMG) (German Mineralogical Association), Karlsruhe, September 20-22, 2004.

273. P.H.Mercier J, Rancourt DG. Recent advances in layer silicate crystal chemistry. Poster. 82nd Annual Meeting of the Deutsche Mineralogische Gesellschaft (DMG) (German Mineralogical Association), Karlsruhe, September 20-22, 2004.

274. Rancourt DG. I'd like to see more unhappy graduate students. Annual GSAED (Graduate Student Association) Interdisciplinary Conference, University of Ottawa, Ottawa, February 8-10, 2005.

275. Rancourt DG. The Invar problem has been solved. 17th Canadian Materials Science Conference, Vancouver, BC, June 11-14, 2005.

276. J.-P. L. Prévost, Rancourt DG. First principles calculations of thermal properties. 17th Canadian Materials Science Conference, Vancouver, BC, June 11-14, 2005.

277. Rancourt DG. Academic squatting as a method of curriculum development: Pushing the limits of academic freedom. Annual GSAED (Graduate Student Association) Interdisciplinary Conference, University of Ottawa, Ottawa, February 8-10, 2006.

278. Rancourt DG. Advances in characterization methods for environmental mineralogy. Recent progress of nanoparticle studies in Earth and planetary sciences

session. 19th International Mineralogical Association Conference, Kobe, Japan, July 23-28, 2006.

279. A. Thompson, Rancourt DG, O. Chadwick, J. Chorover. Development of soil iron mineral composition as a function of climate-driven Fe loss. Poster, Goldschmidt 2008, Vancouver. (Presented by A. Thompson)

Articles for Encyclopedias

280. **Rancourt DG.** Mössbauer Spectroscopy (article with bibliography, p. 413-414). Encyclopedia of Geochemistry, 1999 Edition, edited by C.P. Marshall and R.W. Fairbridge, Kluwer Academic Publishers, Dordrecht, 768 pp.

281. **Rancourt DG.** Quantum Numbers. (article with bibliography, p. 539). Encyclopedia of Geochemistry, 1999 Edition, edited by C.P. Marshall and R.W. Fairbridge, Kluwer Academic Publishers, Dordrecht, 768 pp.

Scientific software packages developed

282. MOSMOD. Mössbauer spectral analysis software. MS-DOS operating system. Includes operating manual. Developed with J.Y. Ping. Approximately 50 copies sold worldwide.

283. RecoilTM. Mössbauer spectral analysis and spectral data handling software. MS-Windows operating system. Includes operating manual. Developed with K. Lagarec. First distributed by ISA Inc., with approximately 200 copies sold worldwide. Now provided for free by Denis Rancourt, https://denisrancourt.ca/page.php?id=10&name=recoil_ms.

284. NanoSimTM. X-ray diffraction simulation software for nanoparticles of specified structures, sizes, shapes, degrees and type of disorder, etc. MS-Windows operating system. Developed with ISA Inc. Beta version being used in our research since 2003.

285. dSED. A database tool for modelling sediment early diagenesis. Written in MS-Access. Includes a user manual authored by S. Katsev, Rancourt DG, and I. L'Heureux. First available free at www.science.uottawa.ca/LSSE/dSED, now available from Professor S. Katsev.

286. MOSS=S&M. A search and match mineral identification software for Mössbauer spectroscopy. MS-Windows operating system. Developed in collaboration with ISA Inc. Beta version was completed in 2004.

Technical Reports (while at University of Ottawa)

287. **Rancourt DG.** 1992. Determining relative abundance of superparamagnetic iron in sediment samples (Contract KW405-1-0526). For Dr. Phil Manning, Environment Canada.

288. **Rancourt DG.** 1994. Design of Mössbauer reaction cell and determination of iron forms in Canadian coals (Contract 23440-3-9267/01-SQ). For Dr. E. Furimsky, CANMET-EMR.

289. **Rancourt DG.** 1995. Mössbauer analyses of sediments (Contract 698845). For Dr. T. Murphy, NWRI, Environment Canada.

290. **Rancourt DG.** 1995. Mössbauer and XRD analyses of sediments (Contract 698863). For Dr. T. Murphy, NWRI, Environment Canada.

291. **Rancourt DG**, I.A.D. Christie and I.P. Swainson. Powder neutron diffraction of synthetic annite mica at $T = 4.2$ K. DUALSPEC Annual Report, Chalk River Laboratories, AECL, 1993, 50-51.

292. **Rancourt DG**, M.-Z. Dang, I.P. Swainson and R.B. Scorzelli. Powder neutron diffraction investigation of antiferromagnetism in meteoritic low-spin γ -phase Fe-Ni (antitaenite). DUALSPEC Annual Report, Chalk River Laboratories, AECL, 1994, 76-77.

293. **Rancourt DG** and I.P. Swainson. Low-temperature spin structures and magnetism of novel synthetic layer silicates. DUALSPEC Annual Report, Chalk River Laboratories, AECL, 1994, 78-79.

294. **Rancourt DG.** 1996. Mössbauer analyses of sediments (Contract 697728). For Dr. T. Murphy, NWRI, Environment Canada.

295. **Rancourt DG.** 1996. Mössbauer analyses of slag samples (Contract KW405-5-2033). For Dr. A. Mudroch, NWRI, Environment Canada.

296. **Rancourt DG.** 1996. Detailed spectral analyses of Mössbauer spectra from slag samples (Contract KW405-5-2159). For Dr. A. Mudroch, NWRI, Environment Canada.

297. **Rancourt DG.** 1996. Mössbauer, XRD, and XRF analyses of a White Water Lake sediment sample (Contract 736182). For Dr. T. Murphy, NWRI, Environment Canada.

298. **Rancourt DG.** 1996. Mössbauer analyses of two White Water Lake sediments (Contract 736200). For Dr. T. Murphy, NWRI, Environment Canada.

299. **Rancourt DG.** 1997. Quantitative mineralogical analyses of three sediment samples from Akanoi Bay, Japan. (Contract 756129-756181). For Dr. T. Murphy, NWRI, Environment Canada, 194 pages.

300. T.P. Murphy, A. Lawson, J. Corsini, I. Gray, and **Rancourt DG.** Whitewater Lake: Biogeochemical study of 1996 botulism outbreak. Internal NWRI report number NTRB 97-211, 50 pages.

301. I.P. Swainson, Z. Tun, and **Rancourt DG.** Polarized triple-axis measurement of the magnetic ground state of annite mica, DUALSPEC Annual Report, Chalk River Laboratories, AECL, 1995, 88-89.

302. **Rancourt DG.** 1998. Geo-Chemical Analyses of three Sediment Samples from Lake Biwa, Japan. (Research agreement REC-24795). For Dr. T. Murphy, NWRI, Environment Canada, 125 pages. [This report won the prize for best foreign report 1998 from the Japanese Ministry of the Environment and has been translated into Japanese.]

303. **Rancourt DG.** 1998. Geo-Chemical Analysis of a Sample fromm Pakowki Lake, Alberta, Canada. (contract 783090). For Dr. T. Murphy, NWRI, Environment Canada, 17 pages.

304. **Rancourt DG.** 2001. Speciation and mineralogy of copper in sediments (contract). For Dr. Robert Prairie, Noranda, 73 pages.

Invited Talks at Institutions (while employed at universities)

305. Rancourt DG. Superferromagnetism, University of Toronto, Monday Condensed Matter Physics Seminar, Toronto, November 28, 1983.

306. Rancourt DG, S.R., Julian, J.M. Daniels. Superpara-magnétisme et Superferromagnétisme. Laboratoire de Cristallographie et de Physique Cristalline Université Bordeaux I, Talence, November 29, 1984.

307. Rancourt DG. Nouvelle Théorie du Magnétisme des Composés d'Insertion du Graphite - Superferromagnétisme en deux dimensions, Centre de Recherche Paul Pascal, Talence, March 15, 1985.

308. Rancourt DG, S.R. Julian, J.M. Daniels. Méthodes pour Déterminer la Taille de Petites Particules par l'Effet Mössbauer, Informal Seminar organized by Dr. G. Marest, Institut de Physique Nucléaire - Université Claude Bernard, Lyon, April 16, 1985.

309. Rancourt DG. Fluctuations de Spins dans les Spin Glass par l'Effet Mössbauer. Seminar organized by Dr. P. Imbert, DPHG-SPSRM, Centre d'Étude Nucléaires de Saclay, Saclay, France, May 29, 1985.

310. Rancourt DG. Effect de Relaxation dans les Spin Glass Amorphes et dans les Alliages Aléatoires, Seminar organized by Dr. M. Boge, Laboratoire des Interactions Hyperfine - Centre d'Étude Nucléaire de Grenoble, Grenoble, September 22, 1985.

311. Rancourt DG, C. Meschi, B. Hun, and S. Flandrois. Graphite Intercalation Compounds - Recently Observed Novel Magnetic Phenomena, Kamerlingh Onnes Colloquium, November 8, 1985.

312. Rancourt DG. Low Temperature Behaviour of Ising Magnetic Chains-Decorated Soliton, Locally Enhanced Exchange and Diffusive Propagation, K.E.L.T. Group Seminar, Kamerlingh Onnes Laboratorium. December 12, 1985.

313. Rancourt DG, H.H.A. Smit, and R.C. Thiel. Fe-Ni Invar Studied by Mössbauer Effect Spectroscopy, Kamerlingh Onnes Colloquium, June 27, 1986.

314. Rancourt DG. Solitons in Solid State Physics, University of Ottawa, Physics Seminar, September 10, 1986.

315. Rancourt DG. Exemples d'Effets Magnétoélastiques dans l'État Solide, Département de Physique, Université de Sherbrooke, 22 octobre, 1987.

316. Rancourt DG. Possibilités d'Application de la Spectroscopie Mössbauer à la Métallurgie, Institut de Génie des Matériaux, Laboratoire du Conseil National de Recherche, Montréal, 23 octobre, 1987.

317. Rancourt DG. The Invar Problem, Physics Department Colloquium, Dalhousie University, Halifax, November 18, 1987.

318. Rancourt DG. Comportement de Magnétisme Réentrant dans L'Invar et le Problème du γ -Fer, Département de Physique, Université de Montréal, 12 avril, 1988.

319. Rancourt DG. Mica - A Laboratory for 2D Physics and a Probe of Rock Formation Conditions, Department of Physics Seminar, University of Ottawa, November 1, 1990.

320. Rancourt DG. Mica - A Laboratory for 2D Magnetism, 1D Hydrogen Diffusion and some Unique Crystal Chemistry, Statistical Physics Seminar, Clarkson University, Potsdam, U.S.A., March 15, 1991.

321. Rancourt DG. Least Squares Fitting of Mössbauer Spectra: Methods and Problems. Materials Physics Department, University of Science and Technology, Beijing, China, September, 1992.

322. Rancourt DG. Magnetism, Atom Order, and Hyperfine Fields in fcc Fe-Ni Alloys. Physics Department, Queen's University, Kingston, Ontario, November 25, 1992.

323. Rancourt DG. Microscopic Mechanism of Oxidation in Fe-Bearing Phyllosilicates. Department of Geological Sciences, University of Illinois at Chicago, April 22, 1993.

324. Rancourt DG. Physical Properties, Magnetism, and History of FCC Fe-Ni Alloys. Physics Department, University of Amsterdam, the Netherlands. January 12, 1994.

325. Rancourt DG. Magnetism of Exchange-Wise 2D Layered Materials: Graphite Intercalation Compounds and Layer Silicates. Kamerlingh Onnes Laboratory, Leiden University, The Netherlands. January 14, 1994.

326. Rancourt DG. Accurate Site Population in Layer Silicates: Toward Single Mineral Geothermometry/Geobarometry. Physics Department, Technical University of Denmark, Lyngby. January 20, 1994.

327. Rancourt DG. Problems in Mössbauer Spectral Analysis and Recent Advances in Methodology, Institute of Physics, Uppsala University, Sweden. January 24, 1994.

328. Rancourt DG. Microscopic Mechanism of Oxidation in Fe-Bearing Phyllosilicates. Institute of Earth Sciences, Uppsala University, Sweden. January 25, 1994.

329. Rancourt DG. Accurate Site Populations in Layer Silicates: Towards Single-Mineral Geothermometry/Geobarometry. Institute for Physics, Medical University, Lubeck, Germany. January 28, 1994.

330. Rancourt DG. Magnetism of Exchange-Wise 2D Layered Materials: Graphite Intercalation Compounds and Layer Silicates. Institute for Nuclear Physics, Technical University of Darmstadt, Germany. February 3, 1994.

331. Rancourt DG. Problems in Mössbauer Spectral Analysis and Recent Advances in Methodology. Institute for Nuclear Physics, Technical University of Darmstadt, Germany. February 10, 1994.

332. Rancourt DG. Problems in Mössbauer Spectral Analysis and Recent Advances in Methodology. Institute for Organic and Analytic Chemistry, Johannes Gutenberg University, Mainz, Germany. February 11, 1994.

333. Rancourt DG. Cinétique et Mécanisme Microscopique de l'Oxydation de la Biotite. Centre de Recherches sur la Synthèse et Chimie des Minéraux, CNRS, Orléans, France. February 15, 1994.

334. Rancourt DG. Magnetism of Exchange-Wise 2D Layered Materials: Graphite Intercalation Compounds and Layer Silicates. Centro Brasileiro de Pesquisas Fisicas, Rio de Janeiro, Brazil. May 12, 1994.

335. Rancourt DG. Five Research Lectures entitled "Advances in Mössbauer Spectroscopy Methodology". Centro Brasileiro de Pesquisas Fisicas, Rio de Janeiro, Brazil. May 1994.

336. Rancourt DG. Different Kinds of Disorder in the 2D Magnetism of Layer Silicates. University of Cincinnati, Ohio. April 28, 1995.

337. Rancourt DG. Tailored 2D magnetism in layer silicates: Theory, experiment and dirt. Department of Physics, Universidad Nacional de La Plata, La Plata, Argentinia. June 8, 1995.

338. Rancourt DG. Three research lectures entitled "Mössbauer methodology, I: Thickness effects, II: Hyperfine parameter distributions, III: Microscopic causes of the hyperfine field and its fluctuations". Department of Physics, Universidad Nacional de La Plata, La Plata, Argentinia. May 31 - June 2, 1995.

339. Rancourt DG. Interplay of magnetism and atomic site occupancy order-disorder phenomena in metallic alloys. O.C.I.P. Xmas talk, Ottawa, December 13, 1995.

340. Rancourt DG. Mössbauer spectroscopy and its applications to materials science, chemistry, metallurgy, mineralogy, phase analysis, etc. Noranda Technology Centre, Montreal, March 7, 1996.

341. Rancourt DG. Low-moment fee Fe-Ni alloy phase proposed as a new meteoritic mineral. Department of Physics, University of Alberta, Edmonton, October 11, 1996.

342. Rancourt DG. Mössbauer spectroscopy as a tool in materials science and its application to steel-related problems. MTL-CANMET, Ottawa, November 20, 1996.

343. Rancourt DG. Les météorites en tant que laboratoires pour la physique de la matière condensée. Département de Physique, Université de Sherbrooke, 19 mars, 1997 (CAP - lecture).

344. Rancourt DG. Low-moment fee Fe-Ni alloy phase proposed as a new meteoritic mineral. Department of Physics, Laurentian University, Sudbury, March 27, 1997 (CAP-lecture).

345. Rancourt DG. Layer silicates, a fascinating class of materials. Steacie Institute for Molecular Sciences, NRC, Ottawa, May 16, 1997.

346. Rancourt DG. From Invar to meteorites via the low-moment phase. Department of Physics and Astronomy, University of Delaware, Newark, USA. October 20, 1997.

347. Rancourt DG. From Invar to meteorites via the low-moment phase. Centro Brasileiro de Pesquisas Fisicas, Rio de Janeiro, Brazil. January 21, 1998.

348. Rancourt DG. The Invar problem and its relation to magnetic frustration and the low moment phase. Brock University, St.-Catherines, Ontario, November 12, 1998.

349. Rancourt DG. Physics, chemistry, and mineralogy of colour, with application to mine tailings. Canadian Centre for Remote Sensing, GSC, Ottawa, November 24, 1998.

350. Rancourt DG. Interplay of phosphate water chemistry and sediment precipitate mineralogy. Lake Biwa Research Institute, Otsu, Japan, June 8, 1999.

351. Rancourt DG. Mechanisms and kinetics of the oxidation reactions of annite and crystal chemistry of the annite-oxyannite series. Chemistry Department, The Royal Veterinary and Agricultural University, Copenhagen, Denmark, September 6, 1999.

352. Rancourt DG. Fe-Ni meteorites and the solution to the Invar Problem. O.C.I.P. Xmas talk, Ottawa, December 17, 1999.

353. Rancourt DG. Why are lake sediments important, on both local and global scales: What do we know about how they work and how can we know more? Department of Physics and Department of Geography, University of Ottawa, March 9, 2000.

354. Rancourt DG. Mechanisms and crystal chemistry of oxidation in annite. Steacie Institute for Molecular Science, NRC, Ottawa, May 25, 2000.

355. Rancourt DG. Development of a single-mineral multi-variable geosensor based on the crystal chemistry of biotite. Faculty of Earth Sciences, Utrecht University, The Netherlands, September 1, 2000.

356. Rancourt DG. Study of Fe sorbed to bacterial cell walls, biogenic ferrihydrite, and abiotic ferrihydrite using ^{57}Fe Mössbauer spectroscopy. Faculty of Earth Sciences, Utrecht University, The Netherlands, August 28, 2001.

357. Rancourt DG. Magnetism of Earth, planetary, and environmental nanomaterials. Department of Physics, University of Ottawa, December 5, 2001.

358. Rancourt DG. Physical characterizations of lake sediments. Geological Survey of Canada, Metals in the Environment (MITE), Point Sources Subprogram, Lake Sediment Studies, Phase II, Project Meeting, Ottawa, December 13-14, 2001.

359. Rancourt DG. A physicist's mid life crisis: Invar, mud, graduate students from hell, PDFs from Holland, finite planet, and radical professionalism. O.C.I.P. Xmas talk, Ottawa, December 18, 2001.

360. Rancourt DG. L'eau, le pétrole, l'Irak et Kyoto. Keynote speaker, Projet culturel et communautaire, Programme Science, lettres et arts (SLA), 2003, CEGEP de l'Outaouais, Hull, Québec, March 20, 2003.

361. Rancourt DG. Biogeochemistry of aquatic particles and potential applications for novel particle size distribution analysers. BrightWELL Technologies Inc., Ottawa. May 14, 2003.

362. Rancourt DG. Advances in characterizing complex mixtures and nanophase materials. Institute for Chemical Process and Environmental Technology (ICPET), NRC, Ottawa, February 24, 2005.

363. Rancourt DG. "C'est quoi l'activisme? Pourquoi l'activisme?" Keynote talk, Première édition de la Semaine de l'Activisme au Collège de Maisonneuve, Montréal, Québec. May 2, 2006.

364. Rancourt DG (invited panellist). Does Activism Work? Forum organized by the International Socialists – Gatineau/Ottawa District. University of Ottawa, June 7, 2006.

365. Rancourt DG (keynote speaker). Afghanistan: Guerre humanitaire ou criminelle? Les conférences du rassemblement Outaouais contre la guerre. Université du Québec en Outaouais, March 6, 2007.

366. Rancourt DG (keynote speaker). On the responsibility of university professors to create anarchism: Liberation through anti-hierarchy activism. Studies in National and

International Development (SNID) series, Queens University, Kingston, Ontario, October 18, 2007.

Many more after departure from university in 2009.

Media and scientific review articles and interviews about our research (while at University of Ottawa)

367. Item: *Antitaenite*, and review of our paper (Rancourt and Scorzelli, 1995, JMMM, 150; 30-36). Featured in: New Mineral Names, by J.L. Jambor, N.N. Pertsev, and A.C. Roberts, American Mineralogist, 81, 1996, 766-770.
368. Article: *Meteorites*. Faculty of Science, University of Ottawa, Newsletter, September 1997.
369. Article: *Researcher seeks industry partners (magnetic sorbants)*. Mining Matters section, Canadian Mining Journal, December 6, 1998.
370. Article: *Researchers caught between an invariable object and a hard place*. Gazette, University of Ottawa, XII(13) June 2, 2000, 4. (Feature on PhD student Ken Lagarec, solution to the Invar problem.)
371. Article: *Développement d'un modèle sur les sédiments lacustres. Lire l'avenir au fond du lac*. Gazette, University of Ottawa, XIII(8) February 23, 2001, 3. Geneviève-L. Picard.
372. Article: *L'avenir des lacs inscrit dans leur vase*. Science-Clips section, Découvrir 22(5) Septembre-Octobre 2001, 8. Philippe Gauthier, Agence Science-Presse.
373. Interview: *Groupe de recherche LSSE*. D'un soleil à l'autre, Radio Canada, September 27, 2001.
374. Promotion: *Can you recognize Canada's university of the 21st century? Denis Rancourt, LSSE group*. Full page width adds appeared in Le Droit, The Globe and Mail, The Ottawa Citizen, and Silicon Valley North, on Thursday, March 1, 2001.
375. Newsletter article: *Denis G. Rancourt – MEDC International Advisory Board member*. Mössbauer Effect Reference and Data Journal, January 2005, volume 28(1), p. 23-24. (Overview of scientific contributions and interests, plus cover photo.)

376. Short Article: *A fresh look at lakes*. Canadian Geographic, Discovery section, May-June issue, 2005, p.32 (two pictures).

377. Interview: *Boreal forest lakes and LSSE*. CHUO FM 89.1 (Ottawa) with host Chris Jack of "5 O'clock Train" (20 minutes, live). May 19, 2005.

378. Interview: Guest interview, one-hour special theme show about global warming. The Roseanne Barr KCAA 1050 AM radio show, Loma Linda, California. May 30, 2007. In relation to DGR's article "Global Warming: Truth or Dare?"

379. Interview: Featured guest interview: Zero Point Radio, with Christopher Holmes and James Moffatt, June 2, 2007, 4-6pm.

380. Interview: Featured guest interview, environmental and development issues. Planète Terre, with Dianne D'Almeida, CHUO 89.1 FM, December 14, 2007, 11-12am; and follow up on global warming, December 21, 2007, 11-12am.

381. Interview: Feature guest interview, DGR environmental scientist. Science et Techno (SET) with Andréanne Baribeau and Louis Jacques, CHUO 89.1 FM, December 21, 2007, 10:30-11am.

382. Interview: Feature guest interview. A murder of Crows with Victoria, Aileen, Domm, and Steph, CHUO 89.1 FM, January 3, 2008, 4-5pm.

Many more after departure from university in 2009.

APPENDIX 1:

AWARDED SCIENTIFIC RESEARCH FUNDING, SCHOLARLY PROFESSIONAL ACTIVITIES,
SIGNIFICANT ACADEMIC COMMITTEES (WHILE AT THE UNIVERSITY OF OTTAWA, 1987-2009)

CHRONOLOGICAL LIST

EXTERNALLY-AWARDED UNIVERSITY RESEARCH GRANTS AND CONTRACTS

| <u>Year</u> | <u>Agency (Type)</u> | <u>Title of project</u> | <u>Type</u> | <u>Amount per year</u> |
|-------------|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------|-------------|----------------------------|
| 1987 | NSERC Equipment | Mössbauer effect spectroscopy system | IR | \$ 34,063 |
| 1987 | Rector's Fund | Mössbauer spectroscopy vacuum furnace and temperature controller (Equipment) | IR | \$ 6,901 |
| 1987-89 | NSERC Operating Grant as URF | Magnetism and spin-dynamics of synthetic-metal superlattices and metallic modulated structures | IR | \$ 19,000 |
| 1989-90 | NSERC Operating Grant as URF | Magnetism and spin-dynamics of synthetic-metal superlattices and metallic modulated structures | IR | \$ 20,000 |
| 1989-90 | NSERC Equipment | Mössbauer exchange gas helium cryostat (equipment) | IR | \$ 23,394 |
| 1989-90 | NSERC Equipment | Compressor for helium recovery system (equipment) (PI=Prof.Gilles Lamarche) | GR | \$ 34,740 |
| 1989-90 | Research Services | Industry-University seed money: Quantitative analysis by Mössbauer spectroscopy for industrial and mining materials processing | IR | \$ 10,000 |
| 1990-91 | NSERC/EMR | Mössbauer determination of sulfate impurities in haematite | IR | \$ 11,100 |
| 1990-92 | NSERC Operating Grant | Magnetism of Fe-Ni Invar alloys graphite intercalation compounds, and micas - using Mössbauer spectroscopy | IR | \$ 30,000 |
| 1992 | NSERC Equipment | Dedicated pumping station for Mössbauer laboratory | IR | \$ 10,507 |
| 1992 | NSERC Equipment | Mössbauer cryostat with 9T superconducting magnet (PI=Prof.Z. Stadnik) | GR | \$ 44,412 |

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|---------|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|----|-----------|
| 1992-95 | NSERC Operating Grant | Fe-Ni Invar alloys, phlogopite annite oxyannite micas, and synthetic microcrystalline hematites: studied by Mössbauer spectroscopy | IR | \$ 30,000 |
| 1992 | NSERC Equipment | X-ray powder diffractometer with primary beam monochromator (PI=Prof.Z.Stadnik) | GR | \$210,676 |
| 1992 | NSERC | Risc workstation network (PI=Prof.G.Slater) | GR | \$ 33,884 |
| 1994 | CANMET/ EMR | Determination of iron forms in Canadian coals by Mössbauer spectroscopy | IR | \$ 40,200 |
| 1995-96 | Environment Canada (NWRI) | Mössbauer and XRD characterization of sediments (3 contracts) | IR | \$ 8,734 |
| 1995-98 | NSERC | Mössbauer spectroscopy methodology, | IR | \$ 28,900 |
| 1998-99 | Operating Grant | synthetic and meteoritic Fe-Ni alloys, and crystal chemistry and 2D magnetism in layer silicates | | \$ 31,790 |
| 1996 | NWRI | Mössbauer analyses of slag samples (2 contracts) | IR | \$ 8,000 |
| 1996-97 | NWRI | Mineralogical analyses of sediments (4 contracts) | IR | \$ 8,065 |
| 1997-98 | NWRI | Quantification of vivianite in lake sediments (2 projects) | IR | \$ 6,760 |
| 1998 | URF | Mössbauer source for identification of new alloy species | IR | \$ 1,550 |
| 1998 | Human Resources Development Canada | Summer career placement program | IR | \$ 1,700 |
| 1998 | URF University Research Fund | Use of colloidal Fe precipitates in wastewater treatment. (PI=Danielle Fortin) | GR | \$ 3,000 |
| 1999-03 | NSERC Research Grant | Condensed matter physics perspective on Earth and planetary materials | IR | \$ 34,650 |
| 2000 | NWRI | Mineralogical profile of an aquatic sediment core | IR | \$ 20,000 |
| 2000 | NSERC Equipment | Magnetometer for characterization of materials (with 4 co-applicants) | IR | \$143,876 |
| 2000 | GSC | Mössbauer mineralogy of sediment core sections from the Champlain Sea (1 contract) | IR | \$ 2,400 |
| 2000 | GSC | Influence of diagenetic processes on lake sediment records, MITE | IR | \$ 36,000 |

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|---------|-------------------------------------|----------------------------------------------------------------------------------------------------------------------|----|-----------------------------------------------------|
| 2000-01 | Noranda Research Agreement | Speciation and mineralogy of copper in sediments | IR | \$ 7,400 |
| 2000-05 | NSERC Strategic Project Grant (SPG) | Quantitative mineralogy and geochemical modelling of lake sediments for advanced applications (with 7 co-applicants) | GR | 154,193 160,217 166,217 160,217 112,460 |
| 2000-05 | GSC in-kind | Quantitative mineralogy and geochemical modelling of lake sediments for advanced applications (with 7 co-applicants) | GR | 415,422 301,042 616 616 616 |
| 2002-03 | CANMET in-kind | Synthesis of mining and environmentally relevant iron oxyhydroxides and co-precipitates | IR | 100,000 100,000 |
| 2001 | NSERC Equipment | Urgent repair and upgrade of Mossbauer laboratory | IR | \$ 31,660 |
| 2002 | NSERC Equipment | Urgent replacement of balances for materials science | IR | \$ 15,379 |
| 2003-08 | NSERC Discoveries | Condensed matter physics perspective on Earth, planetary, and environmental materials | IR | \$45,000 |
| 2008-13 | NSERC Discoveries | Reactive environmental Fe-oxyhydroxide nanoparticles | IR | \$34,891 |

SCHOLARLY AND PROFESSIONAL ACTIVITIES (UNIVERSITY OF OTTAWA, through to 2009)

- 1) Scientific Program Committee: International Conf. on the Applications of the Mössbauer Effect 1993.
- 2) Peer-reviewer for *Physical Review* and *Physical Review Letters* and over a dozen other scientific journals.
- 3) Planning and Organizing Committee of the 1997-11th International Clay Conference (held every 4 years). ICC'97 held June 15-21, 1997, Ottawa.
- 4) Scientific Program Committee: Int. Conf. on the Applications of the Mössbauer Effect 1995.
- 5) Chair and organizer of symposium entitled "Mössbauer spectroscopy in clay science" at ICC'97. Held: June 17-21, 1997, Ottawa.
- 6) Organizer and main instructor of ICC'97 satellite Mössbauer workshop entitled: "Mössbauer spectroscopy applied to mineralogy: Data treatment and spectral analysis using MOSMOD". Held: June 14-15, 1997, Ottawa.

- 7) Canadian representative on the Int. Board on the Applications of the Mössbauer Effect (IBAME) at ICAME'95 and elected Canadian representative on IBAME, 1997-2007.
- 8) Member of the "Advisory Board for the Mössbauer Effect Data Center", starting November 10, 1995.
- 9) Special foreign member of the "Latin American Network of Basic and Applied Research on Magnetism and Magnetic Materials", starting May 26, 1996.
- 10) Past member of the following professional associations:
 - American Geophysical Union (AGU)
 - American Physical Society (APS)
 - American Society for Metals (ASM)
 - Canadian Association of Physicists (CAP)
 - Canadian Association on Water Quality (CAWQ)
 - Canadian Institute of Mining, Metallurgy and Petroleum (CIM)
 - Centre for Catalysis Research and Innovation (CCRI, UofO)
 - Centre for Research in Earth and Space Technology (CRESTech, Ontario)
 - Clay Minerals Society (CMS)
 - Geochemical Society (GS, international)
 - Institute for Research on the Environment and Economics (IREE, UofO)
 - Institute for the Environment (IE, UofO) (Research Associate)
 - International Mineralogical Association (IMA)
 - Material and Manufacturing Ontario (MMO)
 - Mineralogical Association of Canada (MAC)
 - Mineralogical Society of America (MSA)
 - Minerals Metals and Materials Society (TMS)
 - Ottawa-Carleton Geoscience Center (O.-C.G.C.)
 - Ottawa-Carleton Institute for Physics (O.-C.I.P.)
- 10) International Advisory Committee for ISIAME-2000 and ISIAME-2004 (International Symposium on the Industrial Applications of the Mössbauer Effect)
- 11) Advisory Board of University Watch (uwatch.ca), starting 2004
- 12) Founding co-Chair, Steering Committee: Alternative Voices Series (AVS) / Cinema Politica / Cinema Academica, starting 2004

SIGNIFICANT ACADEMIC COMMITTEES (UNIVERSITY OF OTTAWA, through to 2009)

| | |
|--------------|-------------------------------------------------|
| 1988-89 | Dept. Academic Planning and Selection Committee |
| 1989-90 | Dept. Graduate Curriculum |
| 1991-92 | Dept. Undergraduate Curriculum |
| 1992-93, F98 | Dept. Undergraduate Laboratories |
| 1995-98 | DTPC |
| 1995-2001 | Dept. Space and Renovations |
| 1997-98 | Seminar coordinator |
| 1996-98 | APUO representative for Physics and Chemistry |
| 1997-2002 | Faculty Mechanical Shop User Committee |
| 1997-2002 | IREE Coordinating Committee |

| | |
|-----------|------------------------------------------------------------------------------------------|
| 1998-2002 | Environmental Science Program Steering Committee (interrupted during 1999 sabbatical) |
| 1997- | Environmental Science and Engineering Group (ESEG) Chair and founding member |
| 1996-98 | Recruitment, Marketing, and High School Outreach (Department, ad hoc) |
| 1998-2002 | F. Guillon's equipment (Department, ad hoc) |
| 1998-2000 | Visiting Speakers Committee, IE |
| 2000-04 | Environmental Studies (Faculty of Arts) Steering Committee |
| 2000 | Physics Seminar Coordinator (W2000) |
| 2000-02 | Faculty Council |
| 2000-06 | Departmental Space Committee |
| 2002 | Ad hoc Departmental, Research Technical Support (Chair) |
| 2002 | Faculty Space Committee |
| 2003 | Chairman Selection Committee |
| 2004- | Departmental Environmental Safety Representative |

-- end of Appendix 1 --
-- see Appendixes 2 and 3, below --

OTHER APPENDICES:

APPENDIX 2

CV - Rancourt



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Read our blog posts about our research projects, by topic:

All-cause mortality (13)

COVID (21)

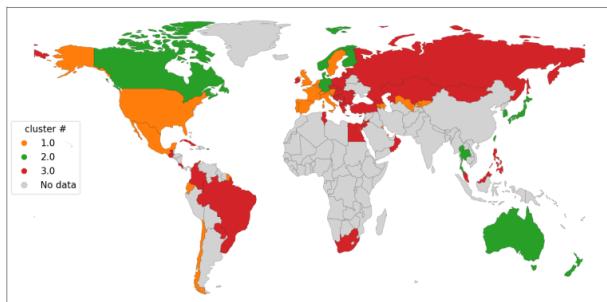
Face masks (2)

SIR models (6)

Updates (8)

Vaccines (13)

Complete list of CORRELATION research papers:



2024-07-19: D.G. Rancourt, J. Hickey & C. Linard, ["Spatiotemporal variation of excess all-cause mortality in the world \(125 countries\) during the Covid period 2020–2023 regarding socio-economic factors and public-health and medical interventions"](https://correlation-canada.org/covid-excess-mortality-125-countries/) <<https://correlation-canada.org/covid-excess-mortality-125-countries/>>, Correlation Report

OPEN ACCESS PEER-REVIEWED

RESEARCH ARTICLE

Impact of immune evasion, waning and boosting on dynamics of population mixing between a vaccinated majority and unvaccinated minority

David N. Fisman, Alta Amroo, Alison Simmons, Ashleigh R. Tuite

Published: April 4, 2024 • <https://doi.org/10.1371/journal.pone.0297093>

COMMENT

Article Authors Metrics Comments Media Coverage Peer Review Download PDF Print Share

Abstract **Introduction** **Methods** **Results** **Discussion** **Supporting information** **References**

Reader Comments **Figures**

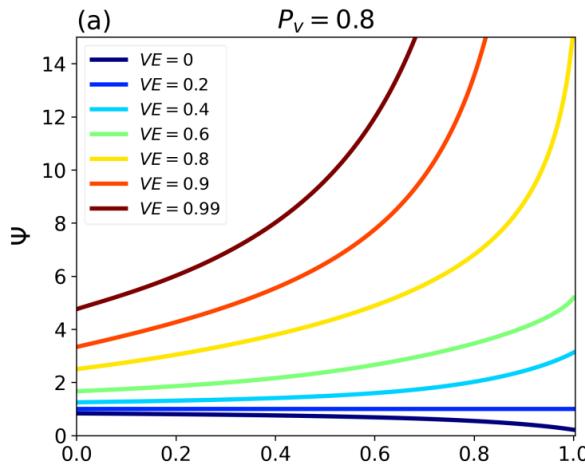
See the data

This article includes the Accessible Data

Background
We previously demonstrated that the immune evasion, waning and boosting dynamics of SARS-CoV-2 in a population with a high proportion of unvaccinated individuals can lead to significant differences in the dynamics of the infection between the vaccinated and unvaccinated populations. In this comment, we update our analysis to evaluate whether our earlier conclusions remained valid.

Methods
We modified a previously published Susceptible-Infectious-Recovered (SIR) compartmental model of SARS-CoV-2 with two connected sub-populations: vaccinated and unvaccinated, with non-random mixing between groups. We explored the impact of different vaccination rates, waning immunity, the impact of prior immune experience on infectivity, "hybrid" effects of infection in previously vaccinated individuals, and booster vaccination. We evaluated the dynamics of an epidemic within each subgroup and in the overall population over a 10-year time horizon.

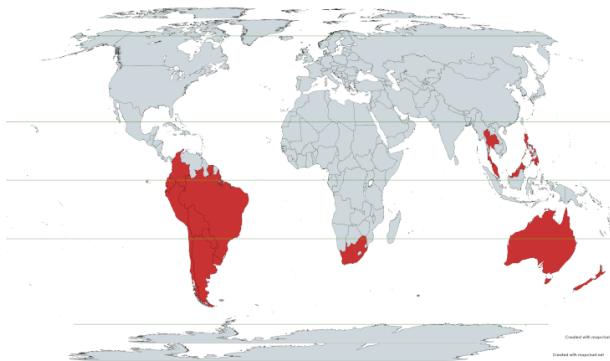
Keywords Vaccination and immunity, Immune evasion, SARS-CoV-2, Vaccines, Immunity, Respiratory infections, Epidemiology



2024-04-25: D.G. Rancourt & J. Hickey, ["Comment on 'Impact of immune evasion, waning and boosting on dynamics of population mixing between a vaccinated majority and unvaccinated minority' by Fisman et al. \(2024\): Incorrect definition and application of a parameter \$\psi\$ "](https://correlation-canada.org/comment-on-fisman-et-al-2024/) < <https://correlation-canada.org/comment-on-fisman-et-al-2024/>, Correlation Brief Report

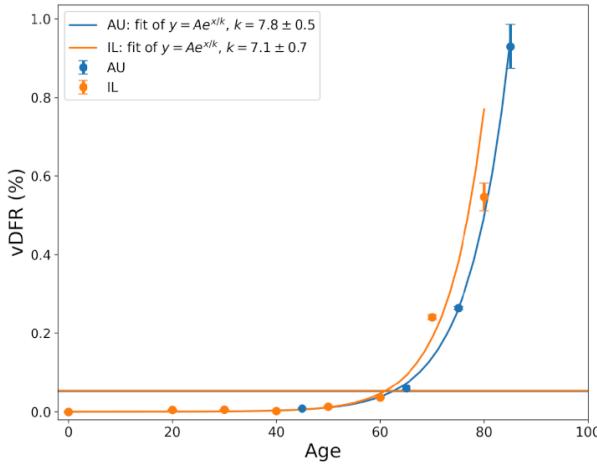
2023-11-30: J. Hickey & D.G. Rancourt, ["Fisman et al.'s Psi \(\$\Psi\$ \) index is ill-defined and leads to absurd interpretations"](https://correlation-canada.org/fisman-et-al-psi-index-is-ill-defined-and-leads-to-absurd-interpretations/) < <https://correlation-canada.org/fisman-et-al-psi-index-is-ill-defined-and-leads-to-absurd-interpretations/>, Correlation Brief Report

2023-10-08: D.G. Rancourt & J. Hickey, ["Quantitative evaluation of whether the Nobel-Prize-winning COVID-19 vaccine actually saved millions of lives"](https://correlation-canada.org/nobel-vaccine-and-all-cause-mortality/) < <https://correlation-canada.org/nobel-vaccine-and-all-cause-mortality/>, Correlation Brief Report



2023-09-17: D.G. Rancourt, M. Baudin, J. Hickey & J. Mercier, ["COVID-19 vaccine-associated mortality in the Southern Hemisphere"](https://correlation-canada.org/covid-19-vaccine-associated-mortality-in-the-southern-hemisphere/) < <https://correlation-canada.org/covid-19-vaccine-associated-mortality-in-the-southern-hemisphere/> , Correlation Report

► Now published in *Journal of Research and Applied Medicine (English* < <https://researchandappliedmedicine.com/revistas/vol2/revista2/canada-ingles.pdf> | *Español* < <https://researchandappliedmedicine.com/revistas/vol2/revista2/canada-espanol.pdf>)



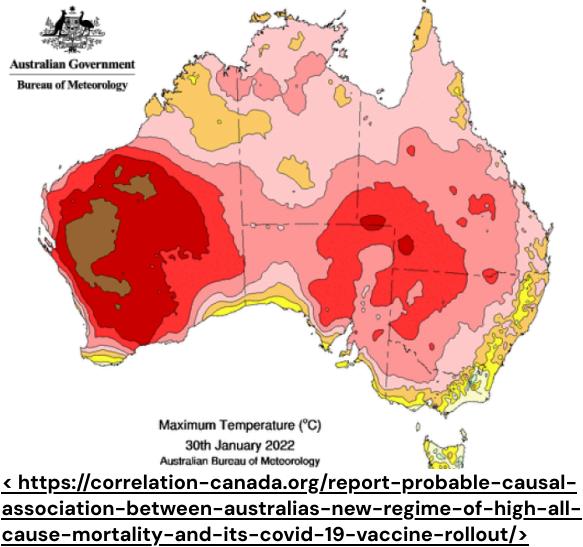
< <https://correlation-canada.org/report-age-stratified-covid-19-vaccine-dose-fatality-rate-for-israel-and-australia/>

2023-02-09: D.G. Rancourt, M. Baudin, J. Hickey & J. Mercier, ["Age-stratified COVID-19 vaccine-dose fatality rate for Israel and Australia"](https://correlation-canada.org/report-age-stratified-covid-19-vaccine-dose-fatality-rate-for-israel-and-australia/) < <https://correlation-canada.org/report-age-stratified-covid-19-vaccine-dose-fatality-rate-for-israel-and-australia/> , Correlation Brief Report

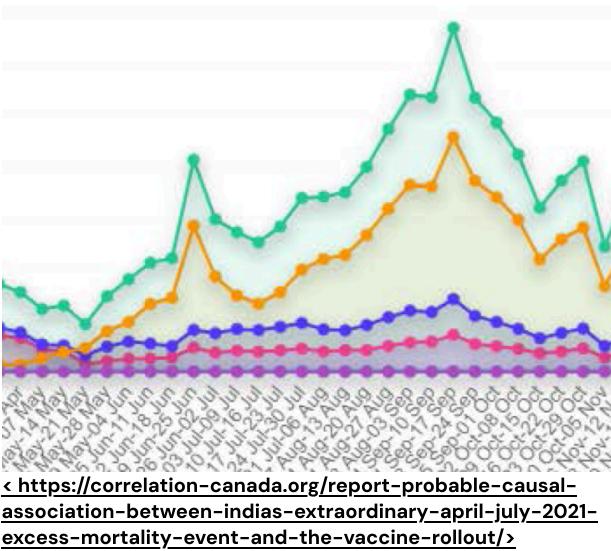


2023-02-05: J. Hickey & D.G. Rancourt, ["Predictions from standard epidemiological models of consequences of segregating and isolating vulnerable people into care facilities"](https://correlation-canada.org/predictions-from-standard-epidemiological-models-of-consequences-of-segregating-and-isolating-vulnerable-people-into-care-facilities/) < <https://correlation-canada.org/predictions-from-standard-epidemiological-models-of-consequences-of-segregating-and-isolating-vulnerable-people-into-care-facilities/> , medRxiv

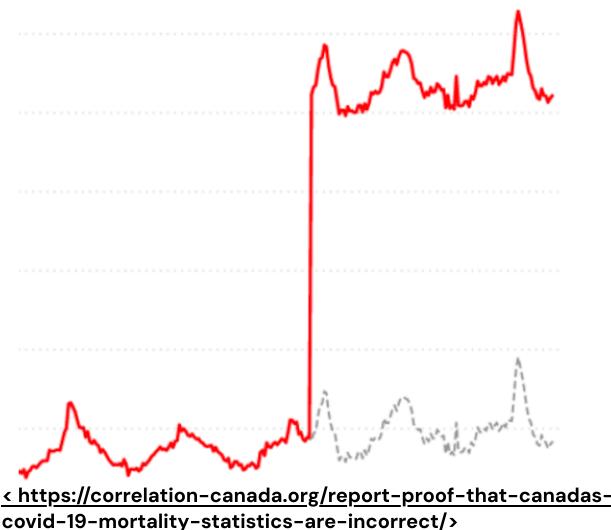
► Now published in *PLOS One* < <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0293556>



2022-12-20: D.G. Rancourt, M. Baudin & J. Mercier, ["Probable causal association between Australia's new regime of high all-cause mortality and its COVID-19 vaccine rollout"](#) < <https://correlation-canada.org/report-probable-causal-association-between-australias-new-regime-of-high-all-cause-mortality-and-its-covid-19-vaccine-rollout/> >, Correlation Brief Report



2022-12-06: D.G. Rancourt, ["Probable causal association between India's extraordinary April-July 2021 excess-mortality event and the vaccine rollout"](#) < <https://correlation-canada.org/report-probable-causal-association-between-indias-extraordinary-april-july-2021-excess-mortality-event-and-the-vaccine-rollout/> >, Correlation Brief Report

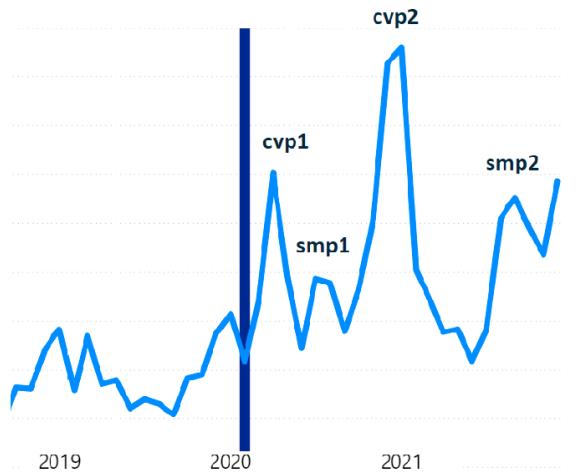


2022-10-05: D.G. Rancourt, M. Baudin & J. Mercier, ["Proof that Canada's COVID-19 mortality statistics are incorrect"](#) < <https://correlation-canada.org/report-proof-that-canadas-covid-19-mortality-statistics-are-incorrect/> >, Correlation Brief Report



2022-08-23: J. Hickey & D.G. Rancourt, ["Compartmental mixing models for vaccination-status-based segregation regarding viral respiratory diseases"](https://correlation-canada.org/compartmental-mixing-models-for-vaccination-status-based-segregation-regarding-viral-respiratory-diseases/) < <https://correlation-canada.org/compartmental-mixing-models-for-vaccination-status-based-segregation-regarding-viral-respiratory-diseases/>, medRxiv

► Now published in [Cureus Journal of Medical Science](https://www.cureus.com/articles/203723-viral-respiratory-epidemic-modeling-of-societal-segregation-based-on-vaccination-status#/) < [https://www.cureus.com/articles/203723-viral-respiratory-epidemic-modeling-of-societal-segregation-based-on-vaccination-status#!](https://www.cureus.com/articles/203723-viral-respiratory-epidemic-modeling-of-societal-segregation-based-on-vaccination-status#/)/>

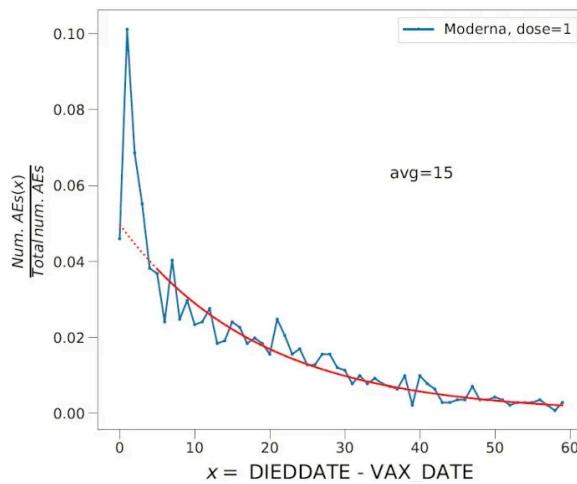


< <https://correlation-canada.org/covid-period-mass-vaccination-campaign-and-public-health-disaster-in-the-usa/>>

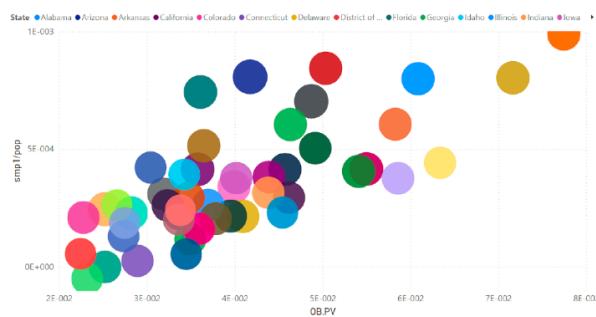
2022-08-02: D.G. Rancourt, M. Baudin & J. Mercier, ["COVID-Period Mass Vaccination Campaign and Public Health Disaster in the USA"](https://correlation-canada.org/covid-period-mass-vaccination-campaign-and-public-health-disaster-in-the-usa/) < <https://correlation-canada.org/covid-period-mass-vaccination-campaign-and-public-health-disaster-in-the-usa/>>, ResearchGate



2022-07-09: J.A. Johnson & D.G. Rancourt, ["Evaluating the Effect of Lockdowns On All-Cause Mortality During the COVID Era: Lockdowns Did Not Save Lives"](https://correlation-canada.org/effect-of-lockdowns-in-usa/) < <https://correlation-canada.org/effect-of-lockdowns-in-usa/>>, Correlation Republication



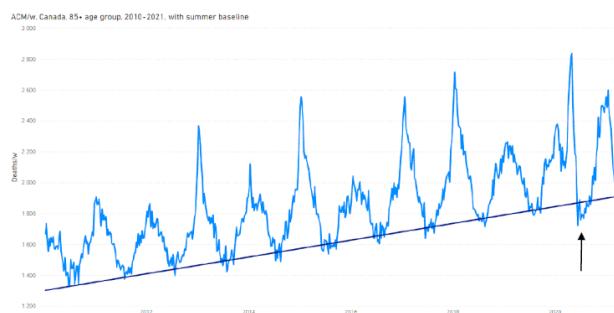
2022-02-09: J. Hickey & D.G. Rancourt, ["Nature of the toxicity of the COVID-19 vaccines in the USA"](https://correlation-canada.org/vaers-toxicity-of-covid19-vaccines/) < <https://correlation-canada.org/vaers-toxicity-of-covid19-vaccines/> >, Correlation Republication



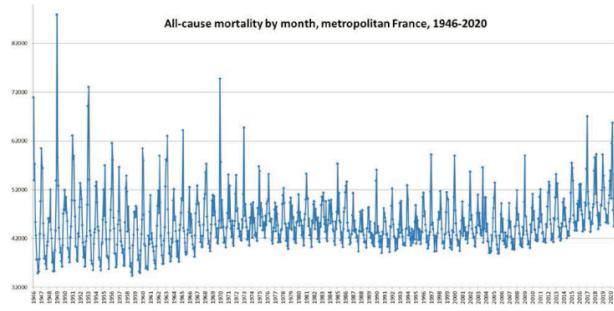
2021-10-25: D.G. Rancourt, M. Baudin & J. Mercier, ["Nature of the COVID-era public health disaster in the USA, from all-cause mortality and socio-geo-economic and climatic data"](https://correlation-canada.org/Mortality-public-health-disaster-USA/) < <https://correlation-canada.org/Mortality-public-health-disaster-USA/> >, Correlation Republication



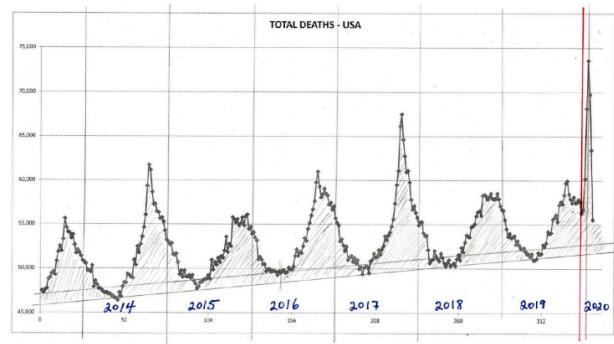
2021-09-20: D.G. Rancourt, ["Do Face Masks Reduce COVID-19 Spread in Bangladesh? Are the Abaluck et al. Results Reliable?"](https://correlation-canada.org/do-face-masks-work-in-bangladesh/) < <https://correlation-canada.org/do-face-masks-work-in-bangladesh/> >, Correlation Republication



2021-08-06: D.G. Rancourt, M. Baudin & J. Mercier, ["Analysis of all-cause mortality by week in Canada 2010–2021, by province, age and sex: There was no COVID-19 pandemic, and there is strong evidence of response-caused deaths in the most elderly and in young males"](#) < <https://correlation-canada.org/all-cause-mortality-in-canada-2021/> >, Correlation Republication



2020-08-20: D.G. Rancourt, M. Baudin & J. Mercier, ["Evaluation of the virulence of SARS-CoV-2 in France, from all-cause mortality 1946–2020"](#) < <https://correlation-canada.org/evaluation-of-covid-virulence-in-france-2020/> >, Correlation Republication



2020-06-02: D.G. Rancourt, ["All-cause mortality during COVID-19: No plague and a likely signature of mass homicide by government response"](#) < <https://correlation-canada.org/no-plague-mass-homicide-2020/> >, Correlation Republication



2020-04-11: D.G. Rancourt, "[Masks Don't Work – A review of science relevant to COVID-19 social policy](https://correlation-canada.org/masks-don-t-work-2020/)" <
<https://correlation-canada.org/masks-don-t-work-2020/>>
Correlation Republication

COVID

OCLA has been actively opposed to all of the oppressive and unnecessary government measures during the COVID era, from the beginning in 2020.

This page collects OCLA's main reports, public letters, position statements, and interviews on COVID, in chronological order:

2020

April 2020 – OCLA Report 2020-1: [“Criticism of government response to COVID-19 in Canada”](#)

April 2020 – OCLA researcher Denis Rancourt publishes article [“Masks Don’t Work A review of science relevant to COVID-19 social policy”](#)

June 2020 – OCLA researcher Denis Rancourt publishes article [“All-cause mortality during COVID-19: No plague and a likely signature of mass homicide by government response”](#)

June 2020 – OCLA letter to the World Health Organization asking it to [retract its recommendation advising the use of face masks in the general population](#)

June 2020 – OCLA campaign to [oppose mandatory face masks in Ontario municipalities](#)

June 2020 – OCLA recommends [civil disobedience against mandatory masking](#)

July 2020 – OCLA publishes Prof. Joseph Audie’s [criticism of the Chu et al. article used by the WHO as a basis for recommending masking in the general population](#)

August 2020 – OCLA letter in defence of [the free speech of Ontario medical doctor Kulvinder Gill](#)

August 2020 – OCLA researcher Denis Rancourt publishes article [“Face masks, lies, damn lies, and public health officials: ‘A growing body of evidence’”](#)

August 2020 – OCLA researcher Denis Rancourt publishes article [“Evaluation of the virulence of SARS-CoV-2 in France, from all-cause mortality 1946-2020”](#)

October 2020 – OCLA participates in [the Toronto rally against the Fall 2020 lockdown in Ontario](#)

October 2020 — OCLA invites [the Chairperson of the Ottawa Board of Health to participate in a public debate on Ottawa's face mask law](#)

December 2020 — OCLA researcher Denis Rancourt publishes article [“Measures do not prevent deaths, transmission is not by contact, masks provide no benefit, vaccines are inherently dangerous: Review update of recent science relevant to COVID-19 policy”](#)

2021

February 2021 — OCLA Report 2021-1: [“Analysis of the scientific basis for Ontario, Canada’s mandatory face masking and physical distancing law, 2020”](#)

February 2021 — OCLA researcher Denis Rancourt publishes article [“Review of scientific reports of harms caused by face masks, up to February 2021”](#)

August 2021 — OCLA researcher Denis Rancourt publishes article [“Analysis of all-cause mortality by week in Canada 2010-2021, by province, age and sex: There was no COVID-19 pandemic, and there is strong evidence of response-caused deaths in the most elderly and in young males”](#)

August 2021 — OCLA publishes Canadian academics’ [“Open Letter to the Unvaccinated”](#)

August 2021 — OCLA publishes Ontario resident Ben Weigl’s report on his efforts to [have his face mask exemption recognized by a shopping mall in Windsor](#)

August 2021 — OCLA publishes statement on [the Canadian government’s proposal to force injections on employees and travellers](#)

August 2021 — OCLA publishes Canadian academics’ [“Open Letter to the Vaccinated”](#)

September 2021 — OCLA publishes Canadian academics’ [“Open Letter to Public Health Officers”](#)

September 2021 — OCLA researcher Denis Rancourt publishes article [“Do Face Masks Reduce COVID-19 Spread in Bangladesh? Are the Abaluck et al. Results Reliable?”](#)

September 2021 — OCLA publishes scientist Dr. John Zwaagstra’s article [“Vaccine concerns weighed against natural immunity”](#)

September 2021 — OCLA publishes Professor Warren Kindzierski’s article [“Rapid appraisal of the usefulness of mRNA vaccines for SARS-COV-2 Delta variant infections and implications for Alberta”](#)

October 2021 — OCLA calls for [sudden deaths in Ontario to be investigated](#)

October 2021 — OCLA researcher Denis Rancourt publishes article [“Nature of the COVID-era public health disaster in the USA”](#)

November 2021 — OCLA supports Ottawa resident’s efforts to [oppose a proof of vaccination requirement at the Toy Mountain Christmas Campaign](#)

November 2021 – OCLA publishes documents about [Bank of Canada data scientist's case of being placed on unpaid leave for declining vaccination](#)

November 2021 – OCLA publishes documents about [Canadian Blood Services employee's case of being terminated for declining vaccination](#)

December 2021 – OCLA publishes documents about [Bank of Canada IT employee's case of being placed on unpaid leave for declining vaccination](#)

2022

January 2022 – OCLA statement on [Analysis of Batch-Specific Toxicity of COVID-19 Vaccine Products using VAERS Data](#)

February 2022 – OCLA Report 2022-1 (ver. 1): [“Nature of the toxicity of the COVID-19 vaccines in the USA”](#)

February 2022 – OCLA statement on [the Government's Use of the Emergencies Act](#)

February 2022 – OCLA calls on MPs to [Reject the Use of the Emergencies Act to Crush Peaceful Protest at Parliament Hill](#)

March 2022 – OCLA researchers interviewed (in French) about [OCLA Report 2022-1 on the toxicity of the COVID-19 vaccines](#)

March 2022 – OCLA publishes [Bank of Canada data scientist's internal appeal of being placed on unpaid leave for declining vaccination](#) (aussi disponible en [français](#))

March 2022 – OCLA director Joseph Hickey interviewed about [the lack of scientific basis for all of the COVID measures](#)

April 2022 – OCLA statement on [the CMAJ Fisman et al. Article Claiming Disproportionate Infection Risk from Unvaccinated Population, and on Negligent Media Reporting](#)

April 2022 – OCLA's response to the Fisman et al. article published as a [Letter to the Editor on CMAJ's site](#)

April 2022 – OCLA researcher Denis Rancourt interviewed about OCLA's criticism of the Fisman et al. article on [the Trish Wood is Critical podcast](#)

May 2022 – OCLA researcher Denis Rancourt presents OCLA's criticism of the Fisman et al. article to [the Canadian Covid Care Alliance](#)

July 2022 – OCLA researcher Denis Rancourt co-authors article [“Evaluating the Effect of Lockdowns On All-Cause Mortality During the COVID Era: Lockdowns Did Not Save Lives”](#)

August 2022 – OCLA researcher Denis Rancourt co-authors article [“COVID-Period Mass Vaccination Campaign and Public Health Disaster in the USA”](#)

September 2022 — OCLA's [submission to the Public Order Emergency Commission](#) on the Canadian government's use of the *Emergencies Act* to quash peaceful protest at Parliament Hill during the Freedom Convoy in February 2022

September 2022 — OCLA Report 2022-2: ["Canadian court decisions on the constitutionality of Covid measures are invalid due to jurisdictional errors of law"](#)

October 2022 — OCLA hosts report [questioning the Canadian government's official number of "COVID deaths"](#)

October 2022 — OCLA Report 2022-3: ["State coercion to receive medical injections confirms conflicting interpretations of the right to life, liberty and security of the person \(Section 7 of the Canadian Charter of Rights and Freedoms\)"](#)

October 2022 — OCLA director Joseph Hickey and researcher Denis Rancourt interviewed (in French) about OCLA Report 2022-3 [on *Tribunal de l'Infaux* with Julie Levesque](#)

November 2022 — OCLA director Joseph Hickey raises constitutional issues in [appeal of denial of Employment Insurance \(EI\) benefits](#) at the Social Security Tribunal of Canada

December 2022 — OCLA hosts report ["Probable causal association between India's extraordinary April-July 2021 excess-mortality event and the vaccine rollout"](#)

December 2022 — OCLA hosts Registered Nurse Andrew Brannan's [letter to the CEO of the Registered Nurses' Association of Ontario](#) opposing action campaign for renewed mask mandates

December 2022 — OCLA hosts an important [Social Security Tribunal of Canada decision](#) finding that an employee's personal decision not to receive a COVID vaccination does not constitute "misconduct" barring the employee from receiving Employment Insurance benefits.

December 2022 — OCLA hosts report ["Probable causal association between Australia's new regime of high all-cause mortality and its COVID-19 vaccine rollout"](#)

2023

February 2023 — OCLA hosts report ["Age-stratified COVID-19 vaccine-dose fatality rate for Israel and Australia"](#)

March 2023 — OCLA report ["The Court of Appeal for Ontario's decision in *J.N. v. C.G.* brings the province's appellate judiciary into disrepute"](#)

May 2023 — OCLA director Joseph Hickey files [leave to appeal request](#) of the Social Security Tribunal (General Division)'s decision not to hear his constitutional challenge of the "misconduct" provisions of the Employment Insurance Act.

September 2023 — OCLA hosts report ["COVID-19 vaccine-associated mortality in the Southern Hemisphere"](#)

October 2023 — OCLA hosts report [“Quantitative evaluation of whether the Nobel-Prize-winning COVID-19 vaccine actually saved millions of lives”](#)

November 2023 — OCLA hosts report [“Fisman et al.’s Psi \(\$\Psi\$ \) index is ill-defined and leads to absurd interpretations”](#)

2024

April 2024 — OCLA hosts report [“Comment on ‘Impact of immune evasion, waning and boosting on dynamics of population mixing between a vaccinated majority and unvaccinated minority’ by Fisman et al. \(2024\): Incorrect definition and application of a parameter \$\psi\$ ”](#)

July 2024 — OCLA hosts report [“Spatiotemporal variation of excess all-cause mortality in the world \(125 countries\) during the Covid period 2020-2023 regarding socio economic factors and public-health and medical interventions”](#)

OCLA